HCD-GRX30/GRX30J/R550/RXD5

SERVICE MANUAL

US Model
Canadian Model
HCD-RXD5
AEP Model
UK Model
HCD-R550/RXD5
E Model
HCD-GRX30/GRX30J
Australian Model
HCD-GRX30
Tourist Model
HCD-GRX30J

HCD-GRX30/GRX30J/R550/RXD5 is the Amplifier, CD player, Tape Deck and Tuner section in MHC-GRX30/GRX30J/R550/RXD5

Photo: HCD-GRX30

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CD Section	Model Name Using Similar Mechanism	HCD-GRX5/RX66
	CD Mechanism Type	CDM38LH-5BD32L
	Base Unit Type	BU-5BD32L
	Optical Pick-up Type	KSS-213D/Q-RP
TAPE DECK Section	Model Name Using Similar Mechanism	HCD-GRX5
	Tape Transport Mechanism Type	TCM-230AWR2

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS:

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

US model:
with 6 ohm loads both channels driven, from 70 - 20,000 Hz; rates 60 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

North American model:
Continuous RMS power output (reference)
60 + 60 W
(6 Ω at 1 kHz, 10% THD)

European model:
DIN power output (rated) 60 + 60 W
(6 Ω at 1 kHz, DIN)
Continuous RMS power output (reference)
80 + 80 W
(6 Ω at 1 kHz, 10% THD)
Music power output (reference)
140 + 140 W
(6 Ω at 1kHz, 10% THD)

Other models:
The following measured at AC 110, 220 V 50/60 Hz
DIN power output (rated) 60 + 60 W
(6 Ω at 1 kHz, DIN)
Continuous RMS power output (reference)
80 + 80 W
(6 Ω at 1 kHz, 10% THD)
The following measured at AC 120, 240 V 50/60 Hz
DIN power output (rated) 70 + 70 W
(6 Ω at 1 kHz, DIN)
Continuous RMS power output (reference)
100 + 100 W
(6 Ω at 1 kHz, 10% THD)

Inputs
MD/VIDEO (AUDIO) IN:
(phono jacks) voltage 450 mV/250mV, impedance 47 kΩ
MIX MIC: (phone jack) sensitivity 1 mV, impedance 10 kΩ
Outputs
MD/VIDEO (AUTO) OUT:
(phono jack) voltage 250 mV impedance 1 kΩ

PHONES: (stereo mini jack) accepts headphones of 8 Ω or more
SPEAKER: accepts impedance of 6 to 16 Ω

SUPER WOOFER
(except for European model):
Voltage 1V, impedance 1kΩ

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780nm) Emission duration: continuous
Laser output	Max. 44.6 µW* *This output is the value measured at distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Frequency response	2 Hz - 20 kHz (±0.5 dB)
Wavelength	780 -790 nm
Signal-to-noise ratio	More than 85 dB
Dynamic range	More than 85 dB

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)

Wavelength	600 nm
Output Level	–18 dBm

— Continued on next page —

MINI Hi-Fi COMPONENT SYSTEM

MICROFILM

SONY®

Tape player section

Recording system: 4-track 2-channel stereo
Frequency response (DOLBY NR OFF): 40 - 13,000 Hz (±3 dB), using Sony TYPE I cassette
40 - 14,000 Hz (±3 dB), using Sony TYPE II cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range: 87.5 - 108.0 MHz
Antenna: FM lead antenna
Antenna terminals: 75 Ω unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section

Tuning range
2 Band type:
North American models: 530 - 1,710 kHz (with the interval set at 10 kHz)
531 - 1,710 kHz (with the interval set at 9 kHz)
European model: 531 – 1,602 kHz (with the interval set at 9 kHz)
Other models: 531 - 1,602 kHz (with the interval set at 9 kHz)
530 - 1,710 kHz (with the interval set at 10 kHz)
3 Band type:
Middle Eastern model:
MW: 531 – 1,602 kHz (with the interval set at 9 kHz)
SW: 5.95 – 17.90 MHz (with the interval set at 5 kHz)
Other models:
MW: 531 – 1,602 kHz (with the interval set at 9 kHz)
530 – 1,710 kHz (with the interval set at 10 kHz)
SW: 5.95 – 1,790 kHz (with the interval set at 5 kHz)
Antenna: AM loop antenna
Antenna terminals: External antenna terminal
Intermediate frequency: 450 kHz

General

Power requirements
- North American model: 120 V AC, 60 Hz
- European model: 230 V AC, 50/60Hz
- Australian model: 230 – 240 V AC, 50/60 Hz
- Mexican model: 120 V AC, 50/60 Hz
- Thailand model: 220 - 240 V AC, 50/60 Hz
- Other models: 110 - 120 V or 220 - 240 V AC, 50/60 Hz

Power consumption
- U.S.A. model: 130 W
- Canadian model: 110 W
- East European model: 130W
- Other models: 110 W

Dimensions (w/h/d) (11 × 13 3/8 × 15 in.): Approx. 280 × 340 × 380 mm

Mass: Approx. 9.5 kg (21 lb.)
Supplied accessories: AM loop antenna (1)
- Remote commander (1)
- Batteries (2)
- FM lead antenna (1)
- Speaker cords (2) (for European model only)

Design and specifications are subject to change without notice.

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

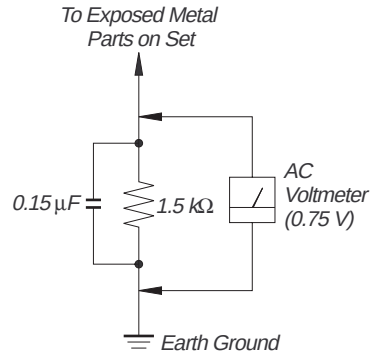


Fig. A. Using an AC voltmeter to check AC leakage.

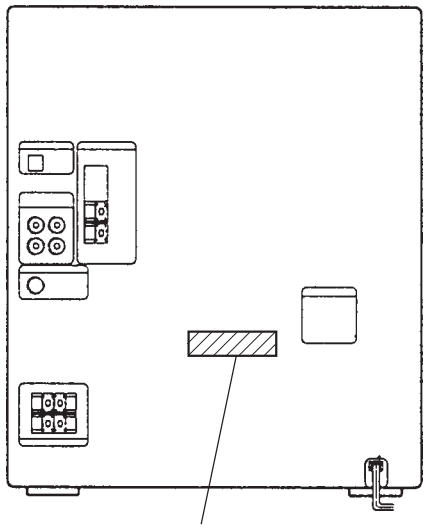
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

MODEL IDENTIFICATION
– Back Panel –

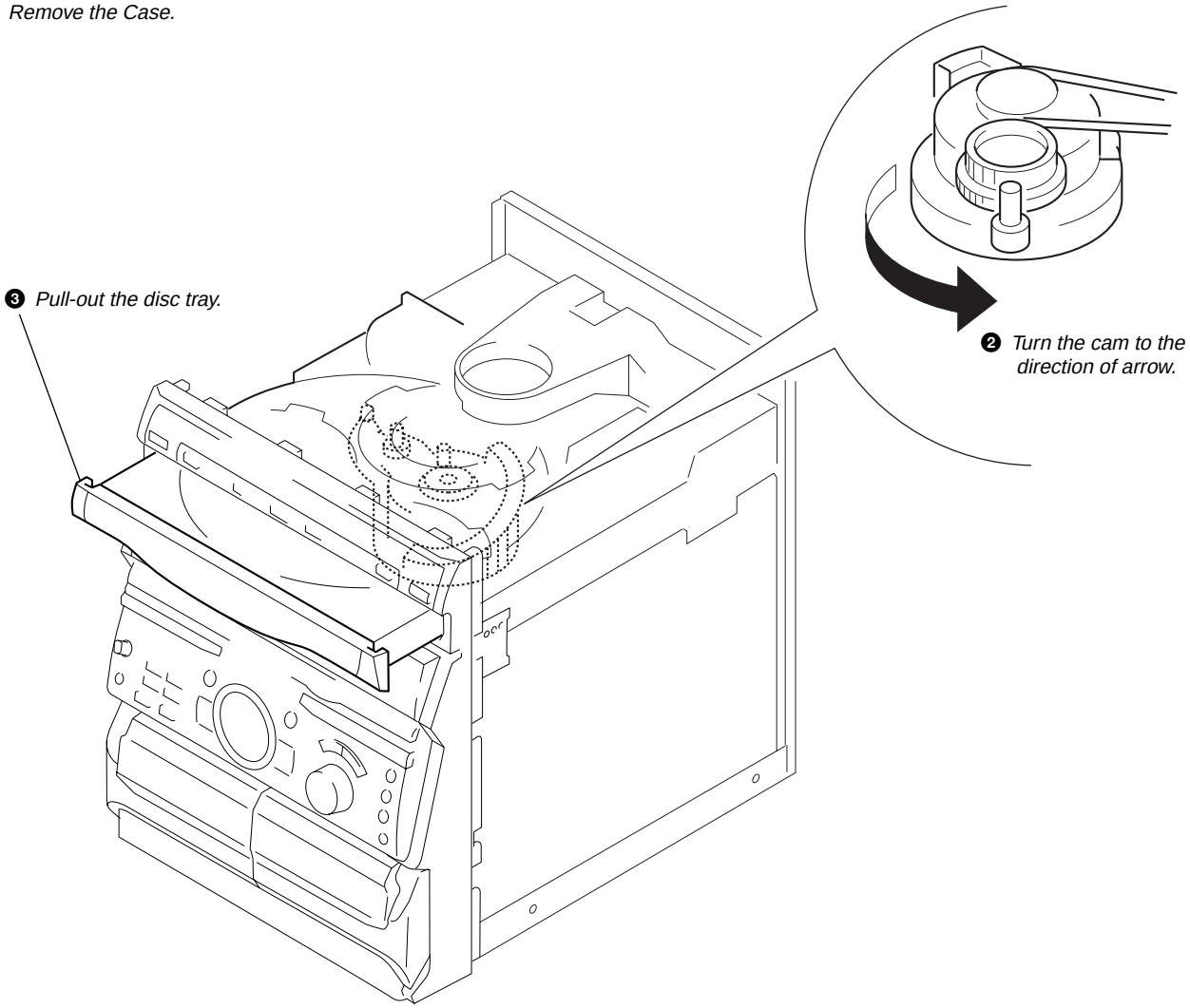


MODEL	PART No.
GRX30: E2, E3, EA, AR, SP, TW models GRX30J models	4-214-432-0☐
R550, RXD5: CIS models	4-214-432-1☐
RXD5: US, CND models	4-214-432-2☐
R550, RXD5: AEP, AED, UK, G models	4-214-432-3☐
GRX30: MX, TH, KR, AUS models	4-214-432-6☐

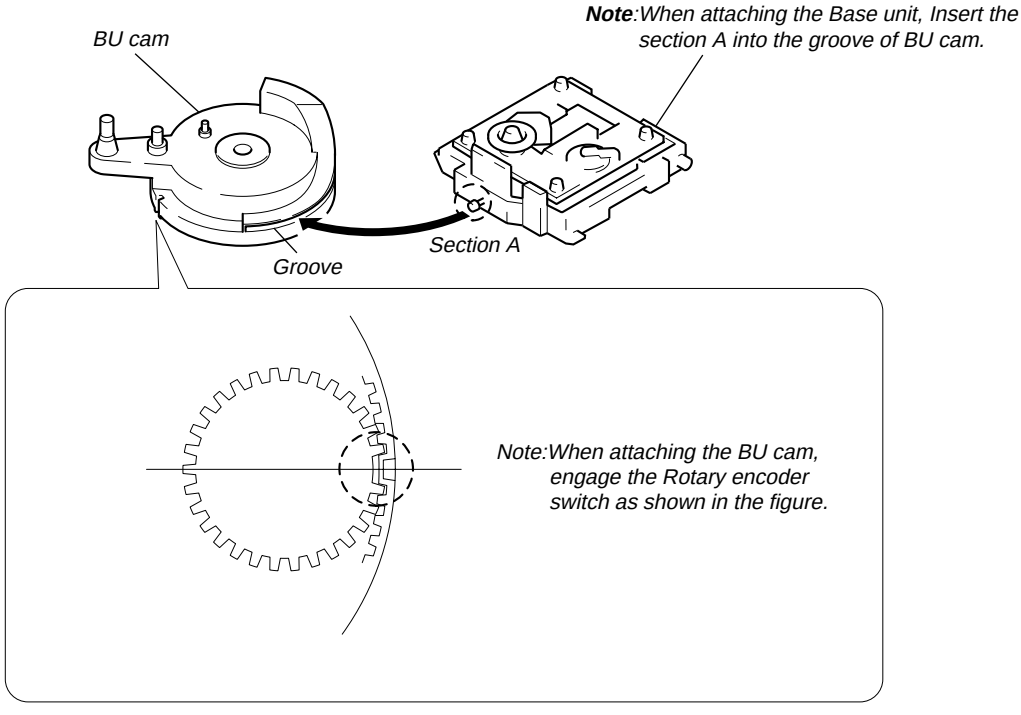
- Abbreviation
  CND : Canadian model
  AUS : Australian model
  G : German model
  AED : North European model
  EA : Saudi Arabia model
  E2 : Central and South America model
  E3 : Middle and Near East model
  MX : Mexican model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model
  AR : Argentina model
  KR : Korea model

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF.

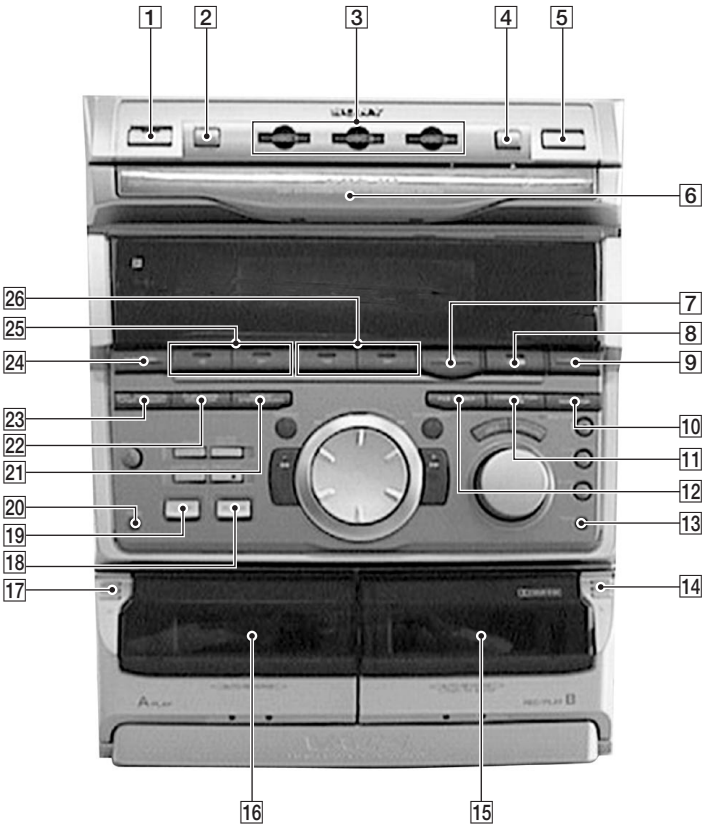
❶ *Remove the Case.*



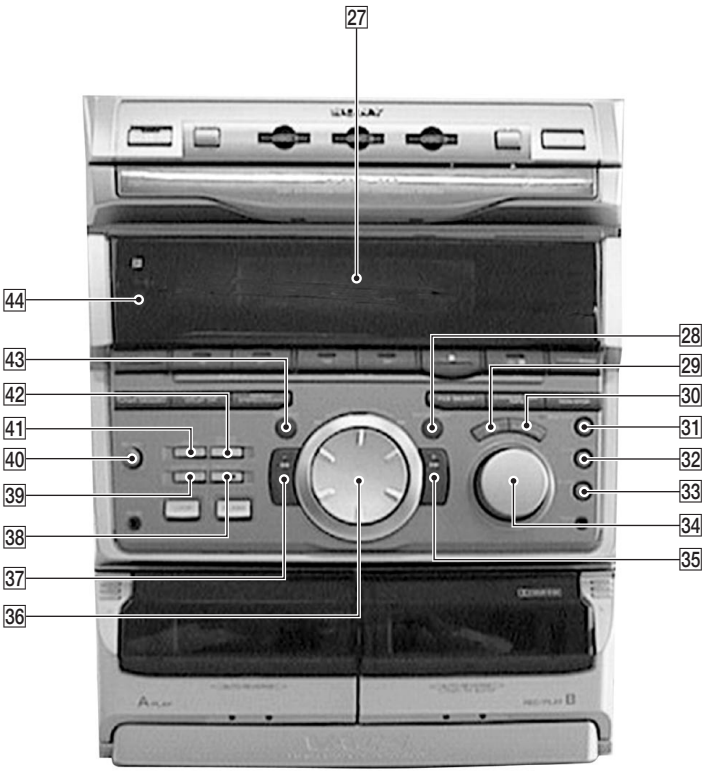
NOTE FOR INSTALLATION (ROTARY ENCODER)


BU cam
Note:When attaching the Base unit, Insert the section A into the groove of BU cam.
Section A
Groove
Note:When attaching the BU cam, engage the Rotary encoder switch as shown in the figure.

SECTION 2
GENERAL



1 I/⏻ (Power) button and indicator
2 DEMO/ (STANDBY)/POWER SAVE (North American and European model) button
3 DISC 1 to 3 button and indicators
4 DISC SKIP/EX-CHANGE button
5 ⏏ (CD) button
6 CD disc tray
7 ■ button
8 CD, ►II button and indicator
9 TUNER/BAND button
10 CD NON-STOP button and indicator
11 KARAOKE PON/MPX button
12 FILE SELECT button
13 PHONES jack
14 ⏏ (deck B)
15 Tape deck B
16 Tape deck A
17 ⏏ (deck A)
18 CD FLASH button
19 CD LOOP button
20 MIX MIC jack
21 REPEAT, STEREO/MONO button
22 PLAY MODE, DOLBY NR, PTY (European model) button
23 EDIT DIRECTION, TUNER MEMORY button
24 FUNCTION button
25 TAPE A, ◄ and ► buttons and indications
26 TAPE B, ◄ and ► buttons and indications



27 Fluorescent indicator tube
28 ENTER/NEXT button and indicator
29 DBFB button
30 SURROUND button
31 REC, PAUSE/START button and indicator
32 HI-DUB button
33 CD SYNC button
34 VOLUME knob
35 +, ►► button and indicator
36 JOG dial
37 –, ◄◄ button and indicator
38 TIMER SELECT button and indicator
39 CLOCK/TIMER SET button
40 MIC LEVEL knob
41 DISPLAY button
42 SPECTRUM ANALYZER button
43 GROOVE button and indicator
44 Remote sensor

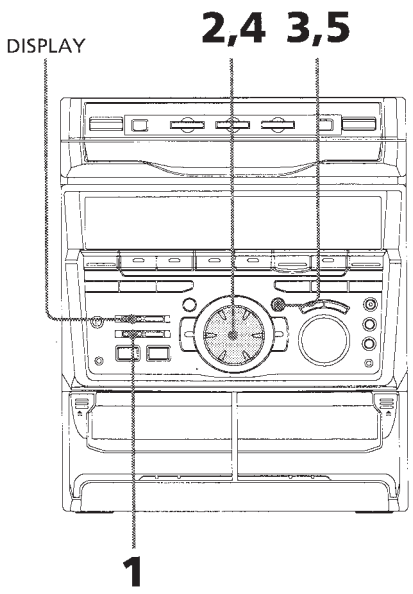
This section is extracted from instruction manual.

Step 2: Setting the time

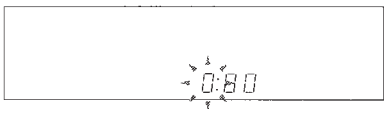
You must set the time before using the timer functions.

The clock is on a 24-hour system for the European model and a 12-hour system for other models.

The 24-hour system model is used for illustration purposes.

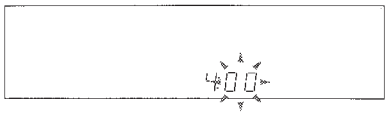


1 Press CLOCK/TIMER SET.
The hour indication flashes.



2 Turn the jog dial to set the hour.

3 Press ENTER/NEXT.
The minute indication flashes.



4 Turn the jog dial to set the minute.

5 Press ENTER/NEXT.
The clock starts working.

Tip

If you've made a mistake, start over from step 1.

To change the time

The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

1 Press CLOCK/TIMER SET.
2 Turn the jog dial to select SET CLOCK.
3 Press ENTER/NEXT.
4 Perform steps 2 through 5 above.

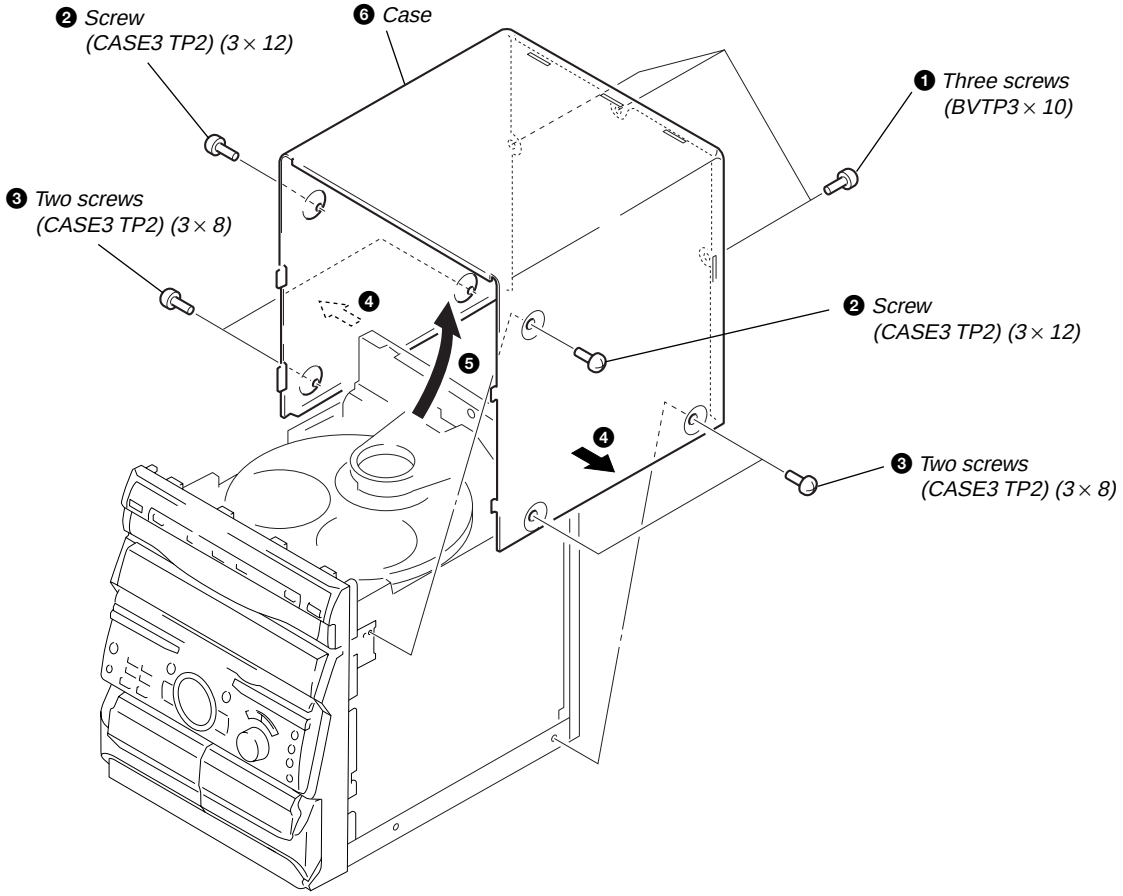
Note

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

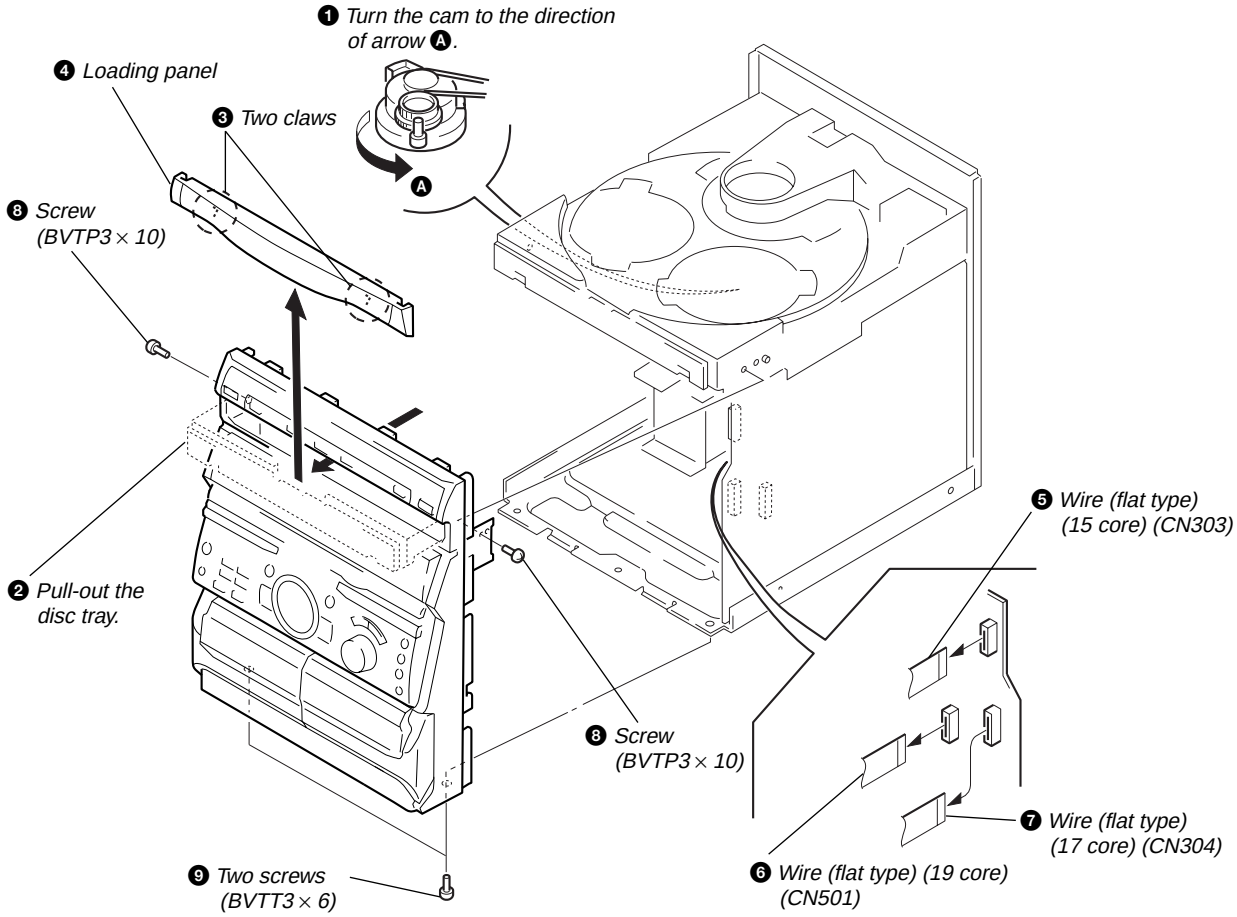
SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

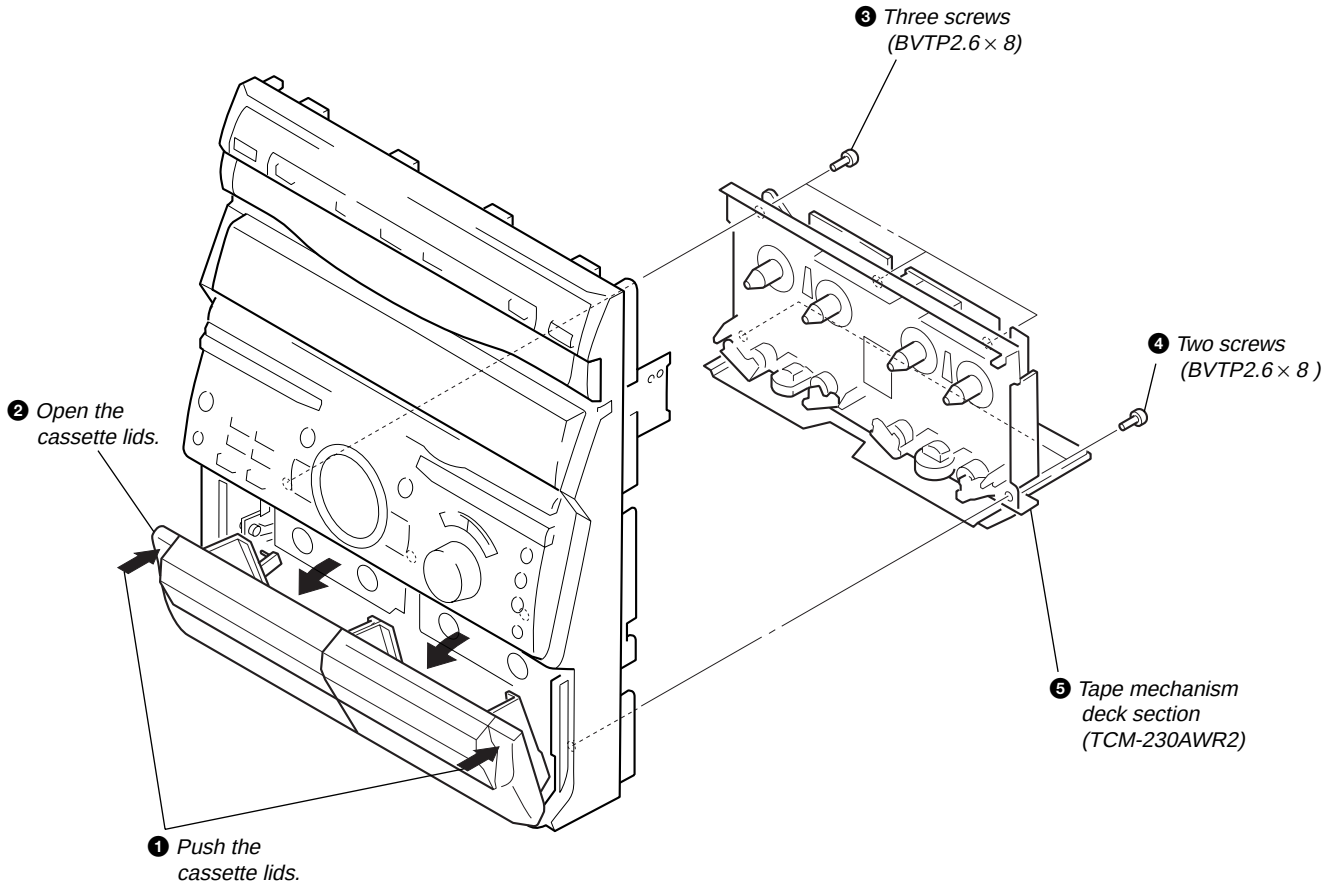
3-1. CASE



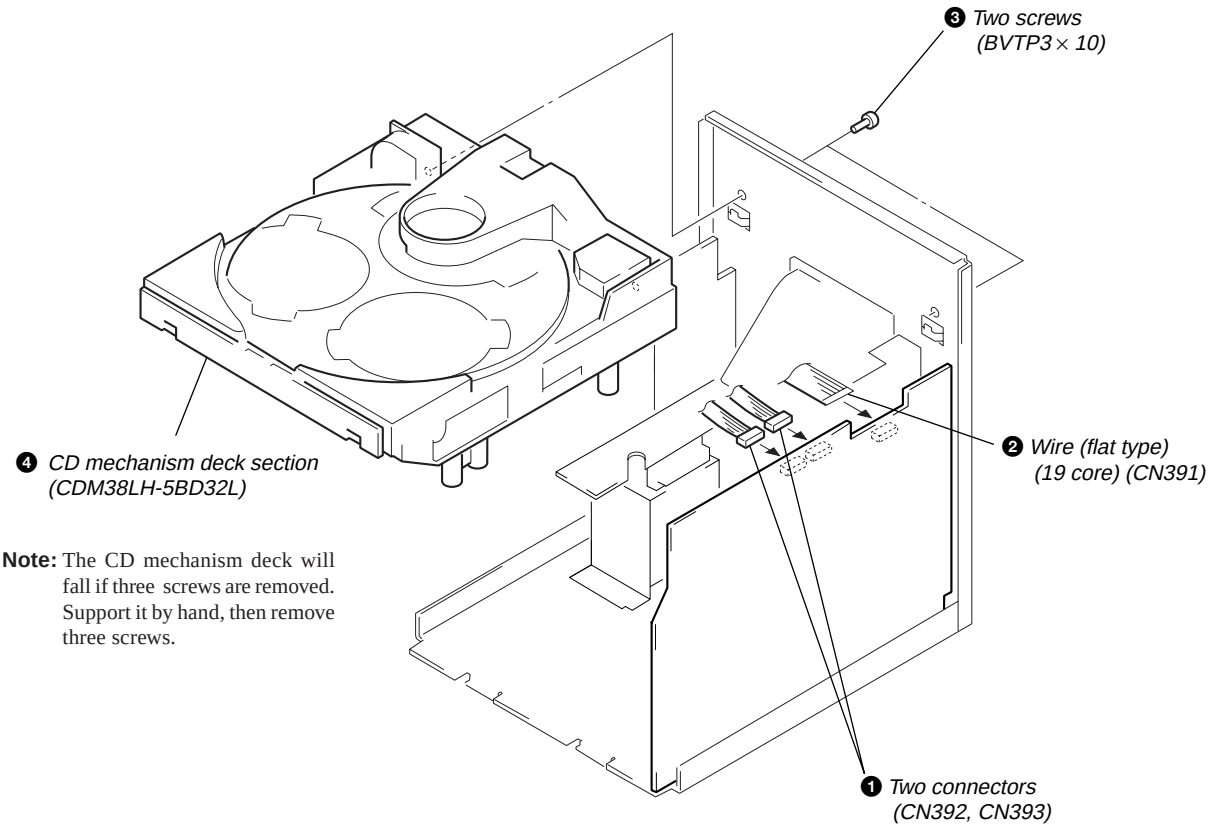
3-2. FRONT PANEL SECTION



3-3. TAPE MECHANISM DECK SECTION (TCM-230AWR2)

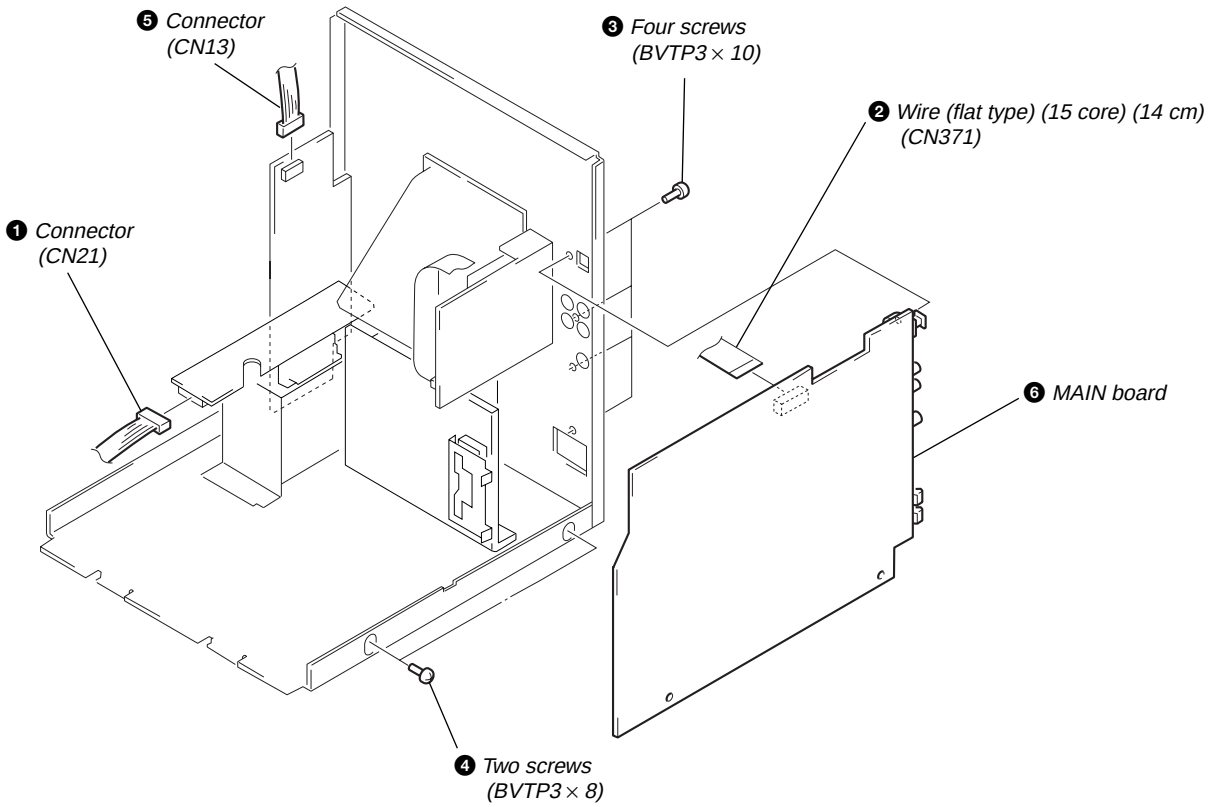


3-4. CD MECHANISM DECK SECTION (CDM38LH-5BD32L)



Note: The CD mechanism deck will fall if three screws are removed. Support it by hand, then remove three screws.

3-5. MAIN BOARD



SECTION 4
TEST MODE

[MC Cold Reset]

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [■] , [ENTER/NEXT], and [I/⏻] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[CD Delivery Mode]

• This mode moves the pickup to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Press [LOOP] button and [I/⏻] button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

[MC Hot Reset]

• This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[Sled Servo Mode]

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pickup.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "CD".
3. Press three buttons [■], [ENTER/NEXT], and [⏏] simultaneously.
4. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
5. With the CD in stop status, press [▶▶ +] button to move the pickup to outside track, or [– ◀◀] button to inside track.
6. To exit from this mode, perform as follows:
   1) Move the pickup to the most inside track.
   2) Press three buttons in the same manner as step 2.

Note: • Always move the pickup to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
• Do not run the sled motor excessively, otherwise the gear can be chipped.

[Change-over of AM Tuner Step between 9 kHz and 10 kHz]

• A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [I/⏻] button to turn the set OFF.
4. Press [ENTER/NEXT] and [I/⏻] buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.

[LED and Fluorescent Indicator Tube All Lit, Key Check Mode]

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [DISC 2] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DISC 2] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 J0 V0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.
   "J" value increases like 1, 2, 3 ... if rotating [JOG] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
   "V" value increases like 1, 2, 3 ... if rotating [VOLUME] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[Aging Mode]

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
  The aging operation stops and display status.
- If no error occurs:
  The aging operation continues repeatedly.

1. Operating method of Aging Mode

1) Set disc in DISC1 tray.
2) Load the tapes recording use into the decks A and B respectively.
3) Press three buttons [■], [ENTER/NEXT], and [DISC SKIP/EX-CHANGE] simultaneously.
4) The aging mode is activated, if a CD roulette mark on the fluorescent indicator tube is blinking.
5) To exit from the aging mode, press [I/⏻] button to turn the set OFF.

2. Operation sequence

- During the aging mode in the following sequence to below.
- Starting the CD section aging for function set "CD", starting the TAPE section (deck A) aging for function set "TAPE A" or "TAPE B". (Set another function is no work.)

CD (disc1) (12 minutes) → Deck A → Deck B → (About 13 minutes 20 seconds maximum)

3. Aging Mode in CD section

1) Display state

- No error occurs

display

[✳][✳] 1 – [@][@]

Note:

[✳][✳] : a letter "CD" and the remainder time (minute) alternately. (remainder time start from 12 minute)

[@][@] : track number in access.

- Error occurred

NO.	Display	Main factor
1	NO DISC ERR	Not set disc in DISC1
2	FOCUS1 ERR	Focus does not work
3	FOCUS2 ERR	Focus does not work after the disc rotate as usual
4	GFS ERR	GFS error
5	FBIAS ERR	Error in to the focus bias adjustment
6	SENSOR ERR	Disc sensor sens DISC1 is no disc
7	TABLE ERR	CD tray lotate does not work
8	TRAY ERR	Tray (include BD) move does not work

2) Operation during aging mode

In the aging mode, the program is executed in the following sequence.

(1) The disc tray turns to select a disc1.
(2) A disc is chucked.
(3) TOC of disc is read.
(4) The pickup accesses to the track 1, and playing 2 seconds.
(5) The pickup accesses to the last track, and playing 2 seconds.
(6) Steps 1 through 5 are repeated about 12 minutes.
(7) Change to deck section aging.

4. Aging Mode in Tape Deck section

1) Display state

- No error occurs
  Display action now
- Error occurred
  Display action last time

NO.	Display action	Action contents	Final timing
1	TAPE A AG-1	Rewind the TAPE A	The top of tape
2	TAPE A AG-2	FWD play the TAPE A	3 minutes playing
3	TAPE A AG-3	F.F. the TAPE A	First either 20 minutes or the end of tape
4	TAPE A AG-4	REV play the TAPE A	3 minutes playing
5	TAPE A AG-5	Rewind the TAPE A	The top of tape
6	TAPE B AG-1	Rewind the TAPE B	The top of tape
7	TAPE B AG-2	FWD play the TAPE B	3 minutes playing
8	TAPE B AG-3	F.F. the TAPE B	First either 20 minutes or the end of tape
9	TAPE B AG-4	REV play the TAPE B	3 minutes playing
10	TAPE B AG-5	Rewind the TAPE B	The top of tape

2) Operation during aging mode

In the aging mode, the program is executed in the following sequence.

(1) Rewind is executed up to the top of tape.
(2) A tape on FWD side is played for 3 minutes.
(3) FF is executed up to either made for 20 minutes or the end of tape.
(4) A tape is reversed, and the tape on REV side is played for 3 minutes.
(5) Rewind is executed up to the top of tape.
(6) Steps 1 through 5 are executed for the other deck.
(7) Change to CD section aging.

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   record/playback heads, erase head, capstan, pinch rollers, rubber belts, idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION 0 dB=0.775 V

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

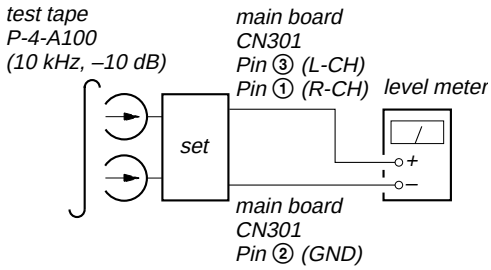
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

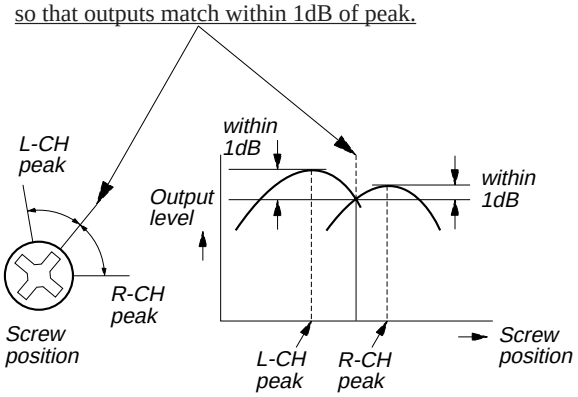
Note: Perform this adjustments for both decks

Procedure:

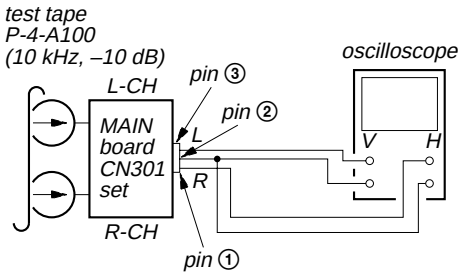
1. Mode: Playback

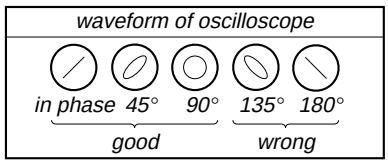


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



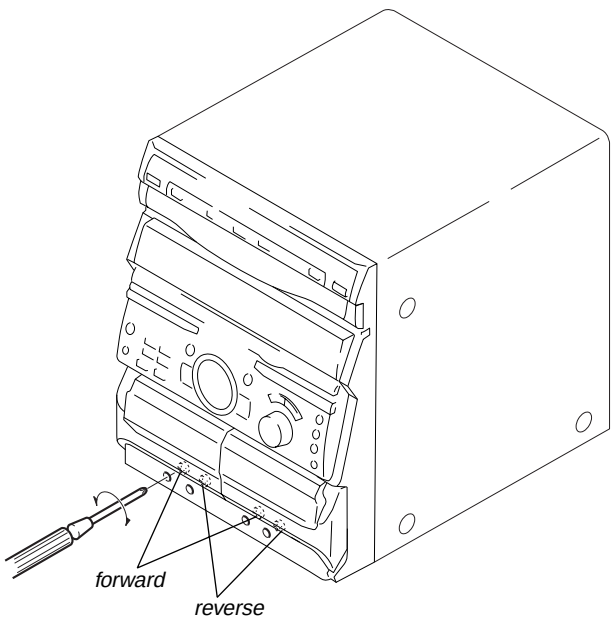
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the pats adjusted.

Adjustment Location: Playback Head (Deck A).
Record/Playback/Erase Head (Deck B).



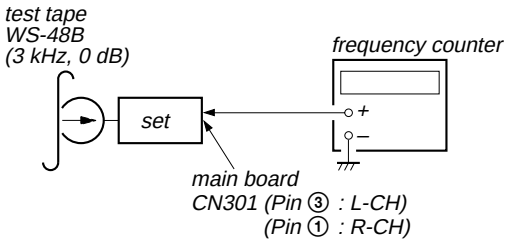
Tape Speed Adjustment DECK B

Note: Start the Tape Speed adjustment as below after setting to the test mode.
In the test mode, the tape speed is high during pressing the HI-DUB button.

Procedure:

1. Turn the power switch on.
2. Press the ■ button, ENTER/NEXT button and DISC 3 button simultaneously.
(The "VOLUME" on the fluorescent indicator tube will blink while in the test mode.)
To exit from the test mode, press the I/⏻ button.

Mode: Playback



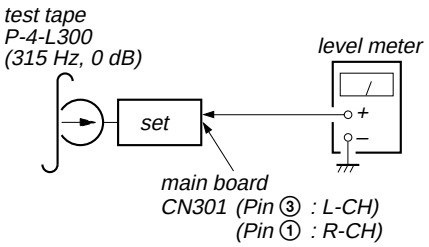
1. Insert the WS-48B into the deck B.
2. Press the ▷ button on the deck B.
3. Press the HI-DUB button in playback mode.
Then at HIGH speed mode.
4. Adjust RV1001 on the LEAF SW board do that frequency counter reads 6,000 ± 180 Hz.
5. Press the HI-DUB button.
Then back to NORMAL speed mode.
6. Adjust RV1002 on the LEAF SW board so that frequency counter reads 3,000 ± 90 Hz.

Adjustment Location: LEAF SW board

Playback level Adjustment DECK A DECK B

Procedure:

Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level:

CN301 PB level: 301.5 to 338.3 mV (–8.2 to –7.2 dB) level difference between the channels: within ±0.5 dB

Adjustment Location: AUDIO board

Sample Volue of Wow and Flutter: 0.3% or less W. RMS
(WS-48B)

REC Bias Adjustment DECK B

Procedure:

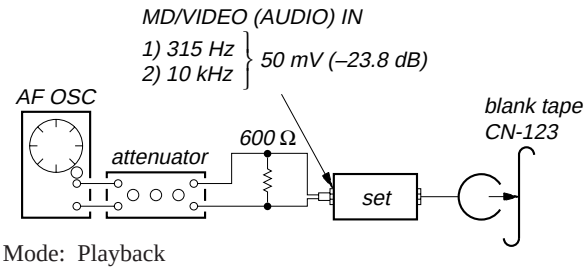
INTRODUCTION

When set to the test mode performed in Tape Speed Adjustment, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

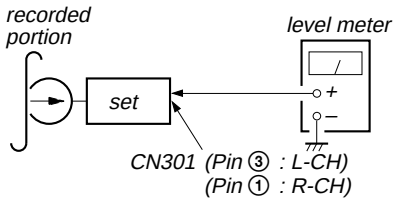
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(If do not operation of stopped from recording complete, and press [– ◀◀] button then rewind to recording start position.)

1. Press FUNCTION button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B.
3. After press [● REC] button, press [❚❚] button, then recording start.
4. Mode: Record



5. Mode: Playback



6. Confirm playback the signal recorded in step 3 become adjustable level as follows.
   If these levels do not adjustable level, adjustment the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 4 and 5.

Adjustable level: Playback output of 315 Hz to playback output of 10 kHz: ±1.0 dB

Adjustment Location: AUDIO board

REC Level Adjustment DECK B

Procedure:

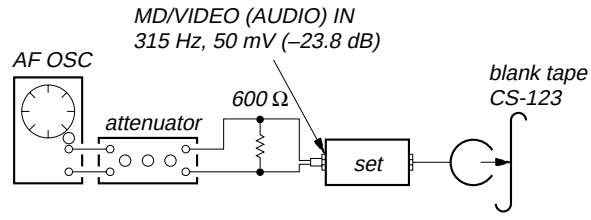
INTRODUCTION

When set to the test mode performed in Tape Speed Adjustment, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

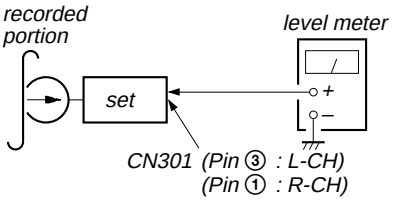
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(If do not operation of stopped from recording complete, and press [– ◀◀] button then rewind to recording start position.)

1. Press [FUNCTION] button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B.
3. After press [● REC] button, press [❚❚] button, then recording start.
4. Mode: Record



5. Mode: Playback



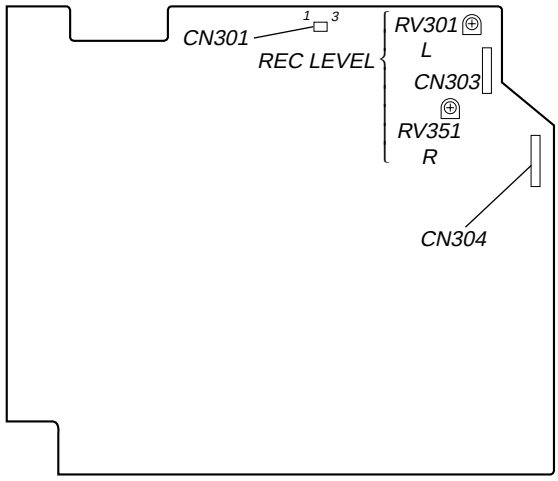
6. Confirm playback the signal recorded in step 3 become adjustable level as follows.
   If these levels do not adjustable level, adjustment the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 4 and 5.

Adjustable level:

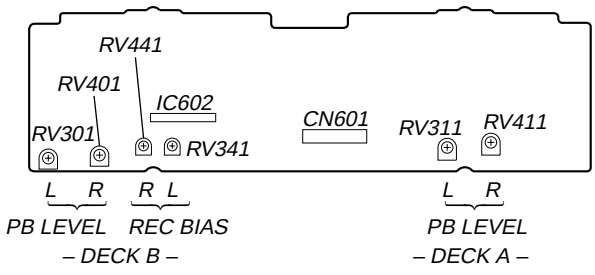
CN301 PB level: 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location: MAIN board

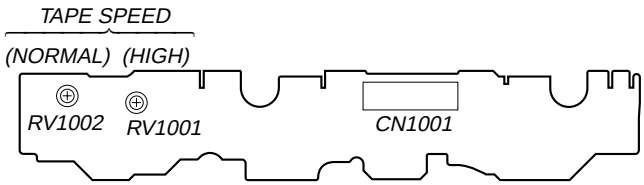
[MAIN BOARD] (Component Side)



[AUDIO BOARD] (Component Side)



[LEAF SW BOARD] (Component Side)

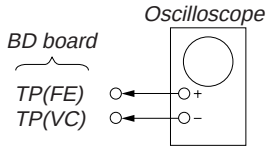


CD SECTION

Note :

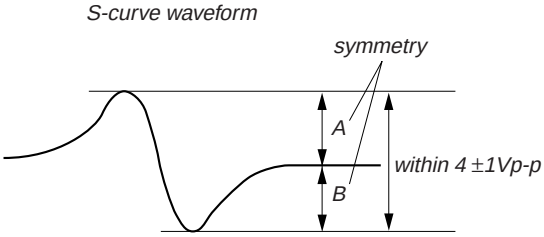
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check



Procedure :

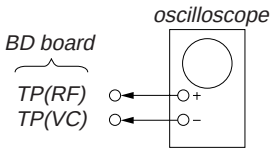
1. Connect oscilloscope to TP (FE).
2. Connect between TP (FEI) and TP (VC) by lead wire.
3. Connect between TP (AGCCON) and TP (GND) by lead wire.
4. Turn Power switch on.
5. Load a disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
6. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 4 ±1 Vp-p.



7. After check, remove the lead wire connected in step 2 and 3.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

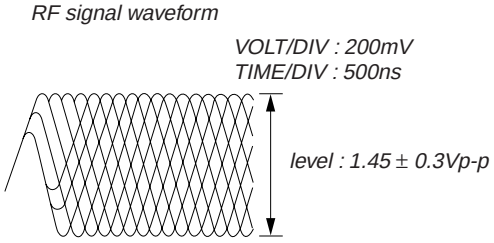
RF Level Check



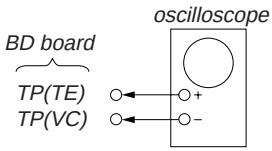
Procedure :

1. Connect oscilloscope to TP (RF).
2. Connect between TP (AGCCON) and TP (GND) by lead wire.
3. Turned Power switch on.
4. Load a disc (YEDS-18) and playback.
5. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.
6. After check, remove the lead wire connected in step 2.

Note : Clear RF signal waveform means that the shape " ◊ " can be clearly distinguished at the center of the waveform.

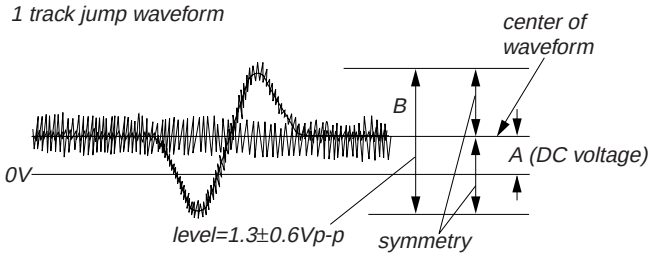


E-F Balance (1 Track jump) Check



Procedure :

1. Connect oscilloscope to TP (TE) and TP (VC).
2. Turned Power switch on.
3. Load a disc (YEDS-18) and playback the number five track.
4. Press the ▶ button. (Becomes the 1 track jump mode.)
5. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.



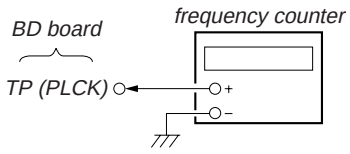
Specified level: $\frac{A}{B} \times 100$=less than ±22%

6. After check, remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

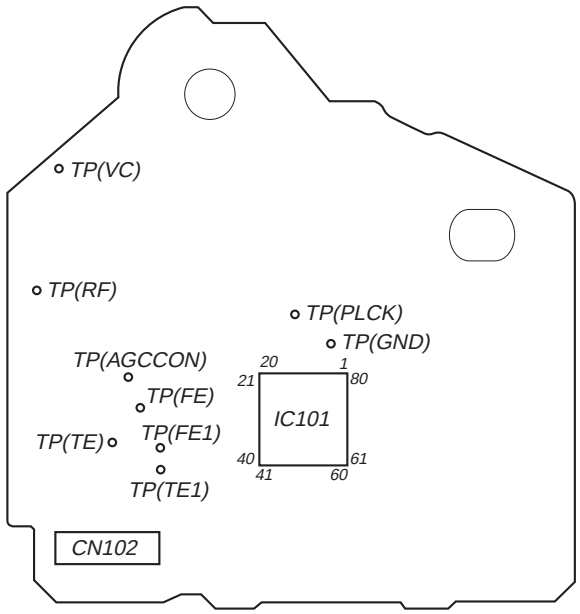
1. Connect frequency counter to test point (PLCK) with lead wire.



2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track. Confirm that reading on frequency counter is 4.3218MHz.

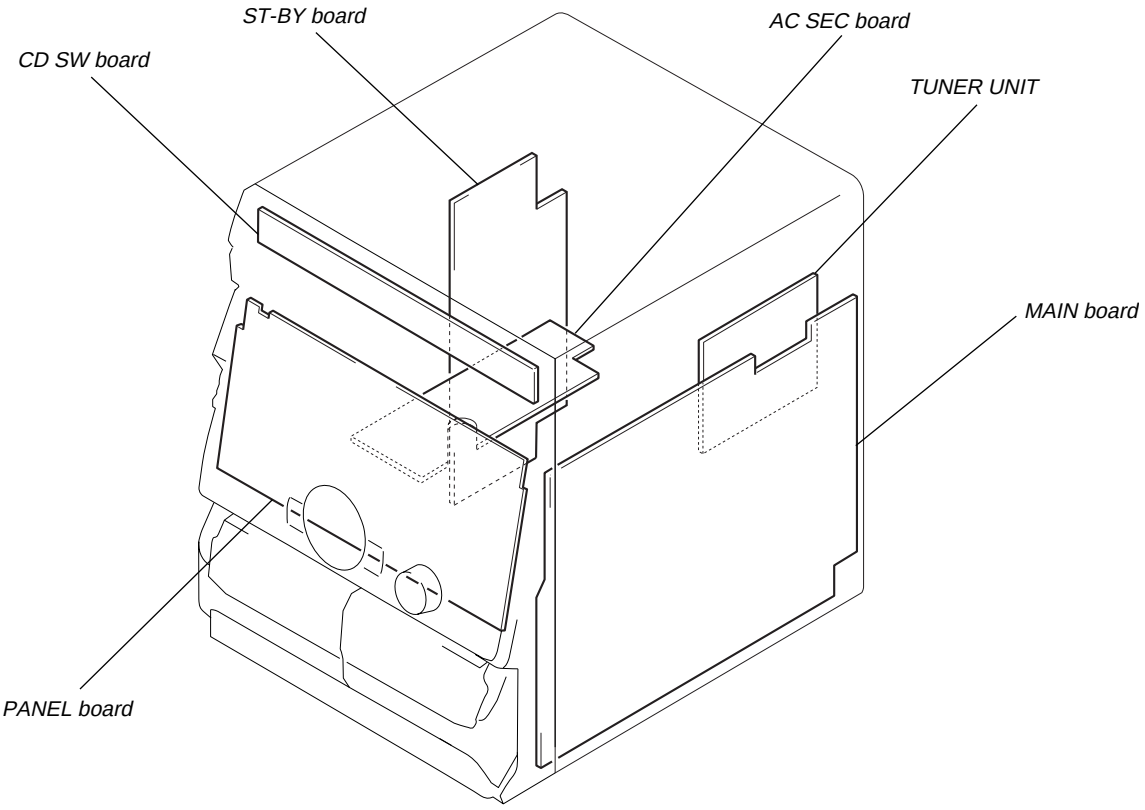
Adjustment Location:

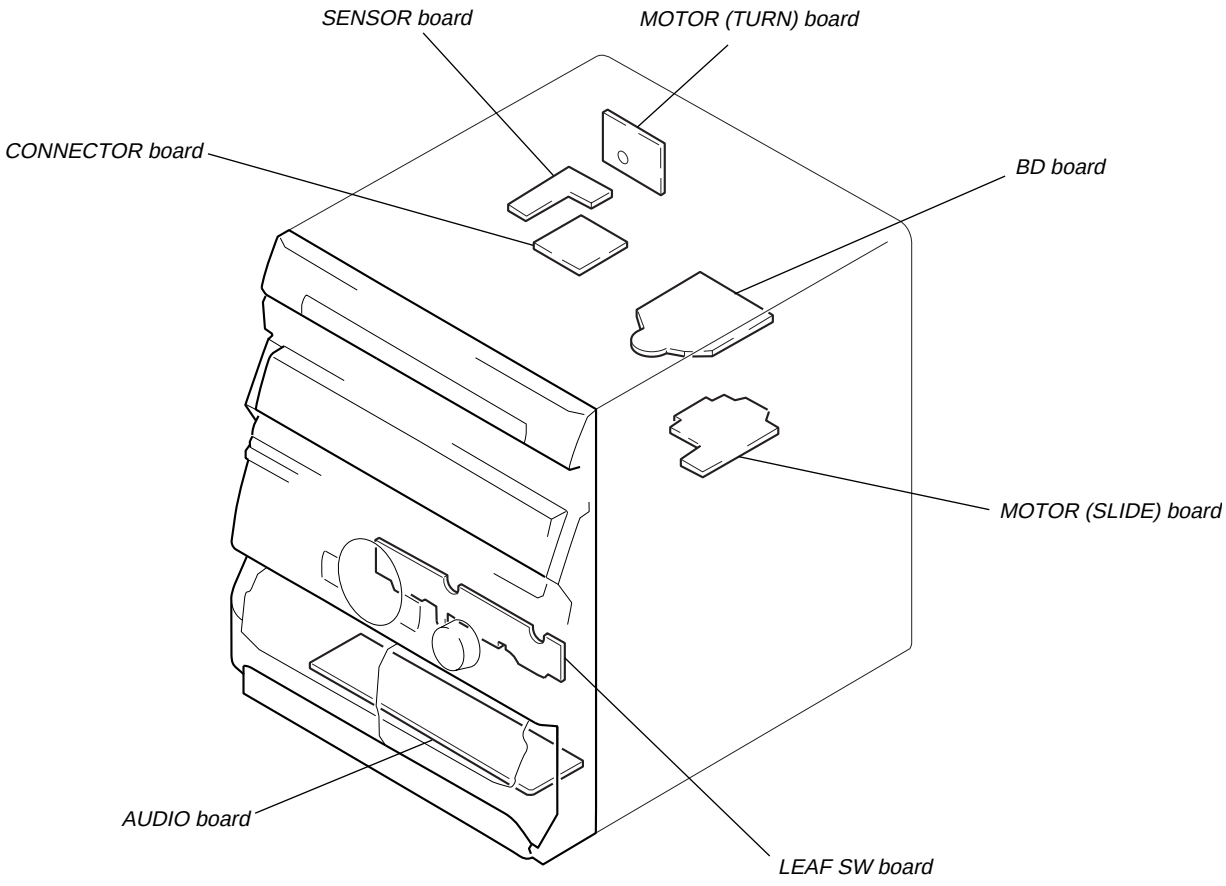
[BD BOARD] (Conductor Side)



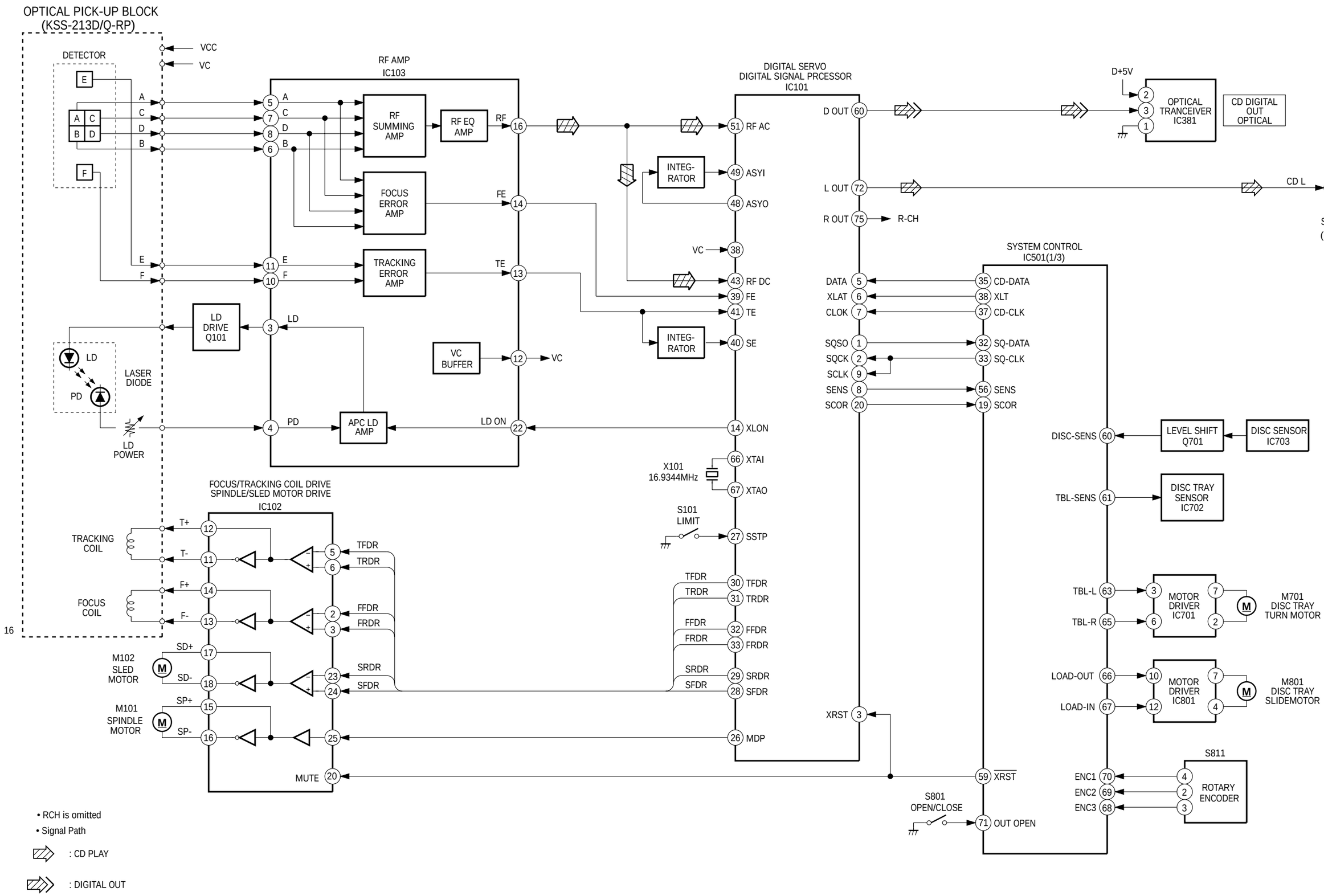
SECTION 7
DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION

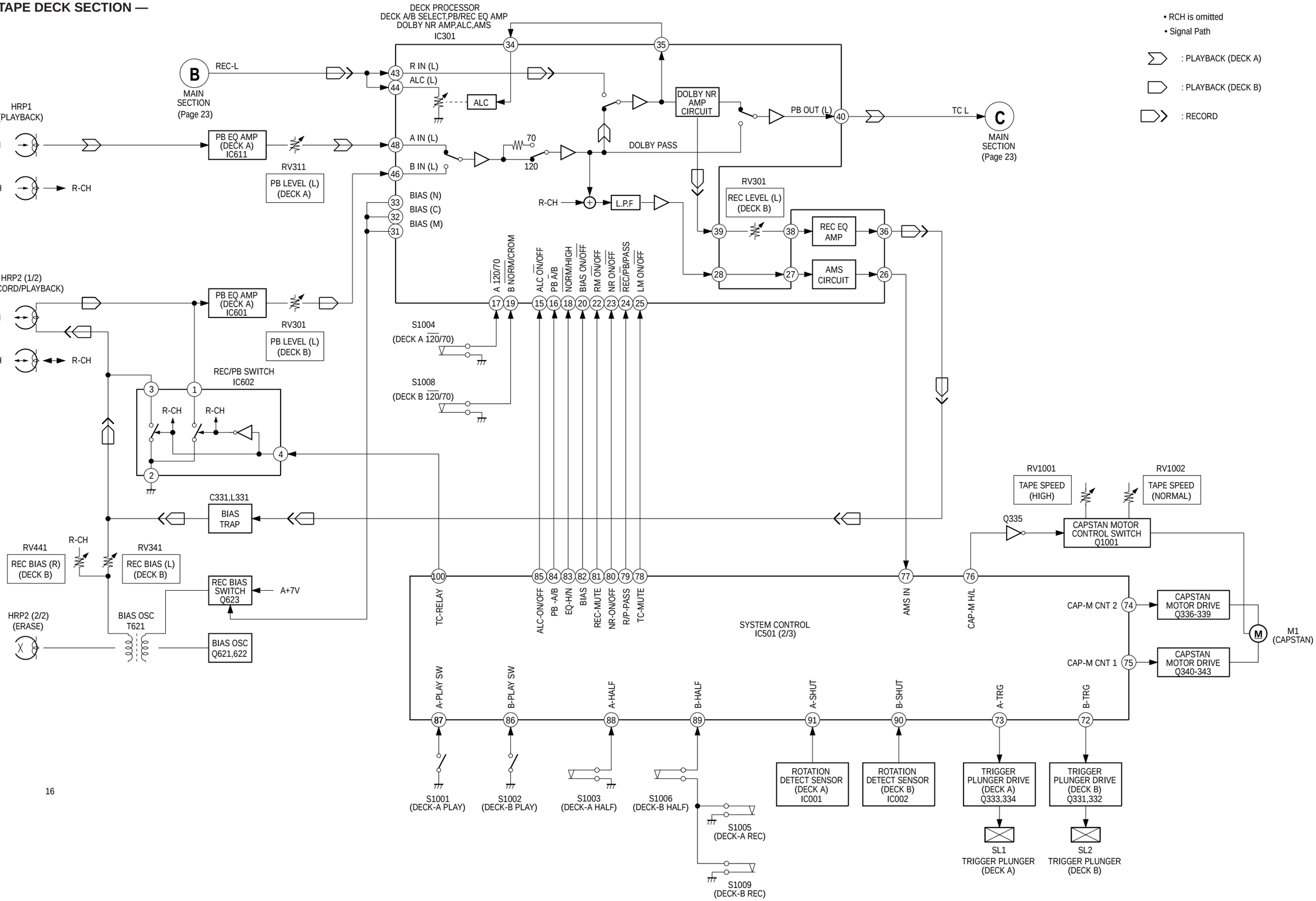




7-2. BLOCK DIAGRAMS
— CD SECTION —

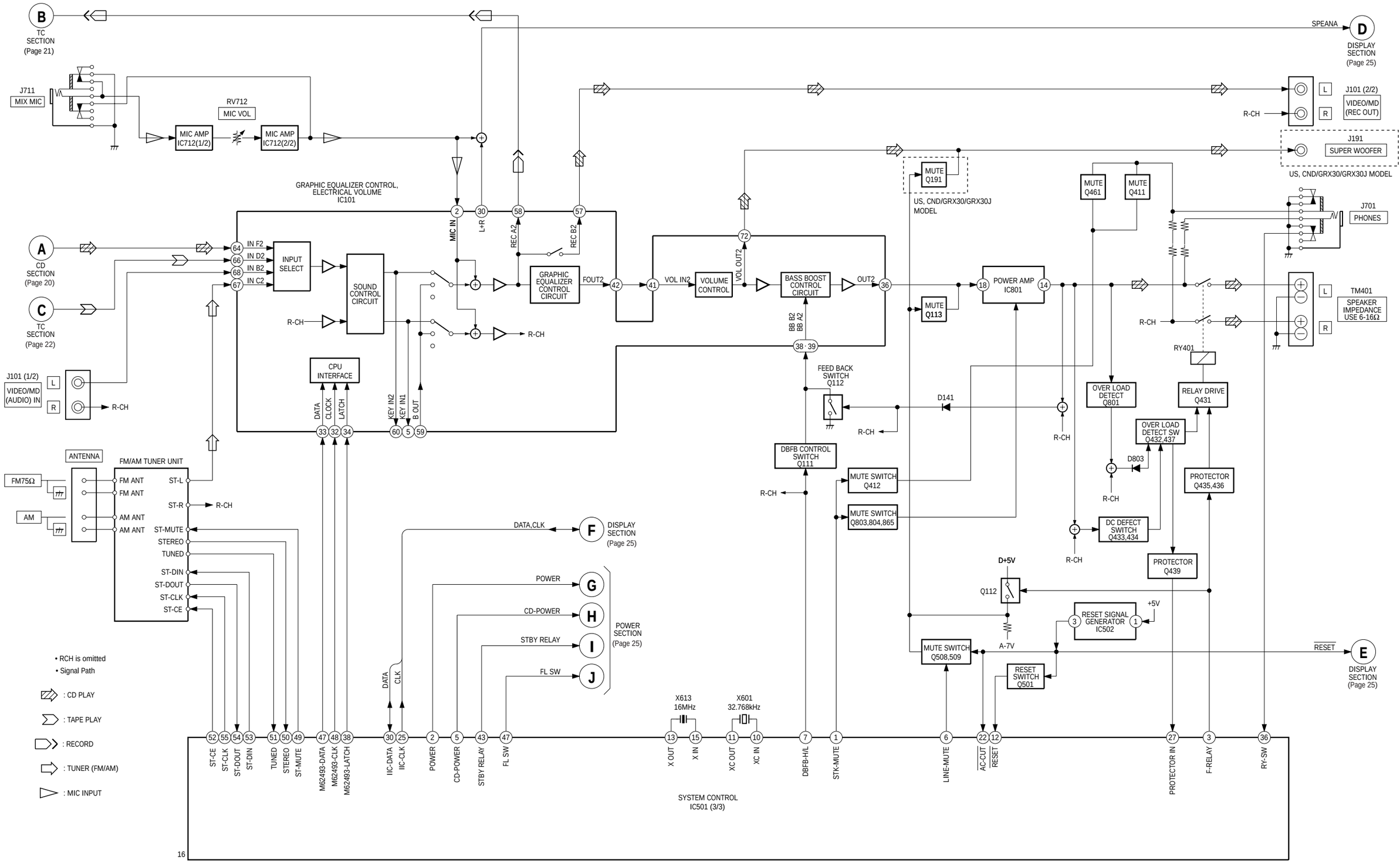


— TAPE DECK SECTION —

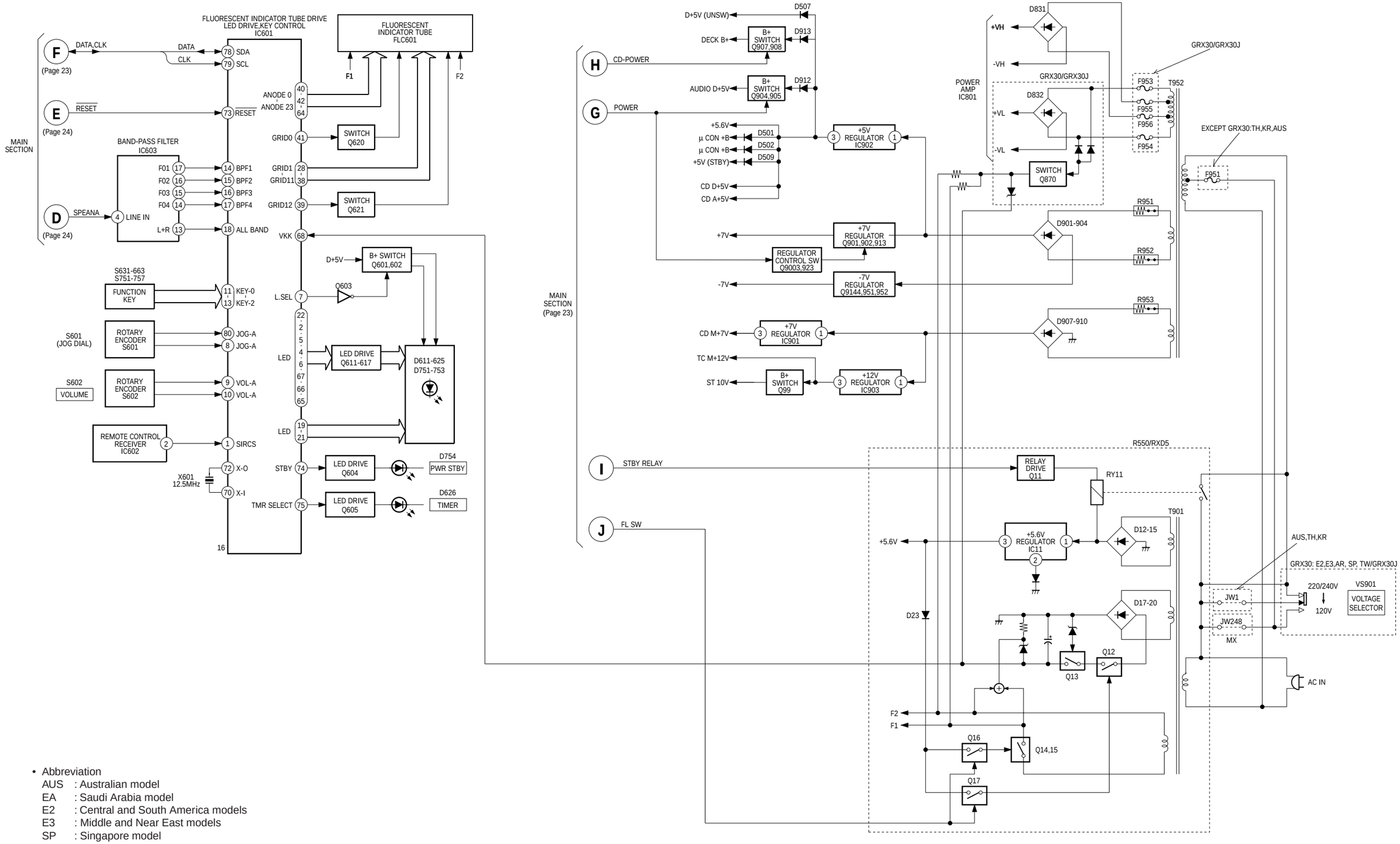


— MAIN SECTION —

• Abbreviation
CND : Canadian model



— DISPLAY/KEY CON SECTION —



- Abbreviation
  AUS : Australian model
  EA : Saudi Arabia model
  E2 : Central and South America models
  E3 : Middle and Near East models
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model
  AR : Argentina model
  KR : Korea model

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- B+ : B+ Line.
- B− : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ➡ : AM
  - Σ : PB (DECK A)
  - ▷ : PB (DECK B)
  - ▷» : REC (DECK B)
  - ⇨ : CD
  - ⇨» : digital out
- Abbreviation

  CND : Canadian model
  AUS : Australian model
  G : German model
  AED : North European model
  EA : Saudi Arabia model
  E2 : Central and South America models
  E3 : Middle and Near East models
  MX : Mexican model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model
  AR : Argentina model
  KR : Korea model

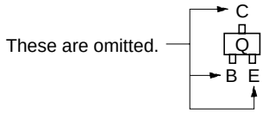
Note on Printed Wiring Boards:

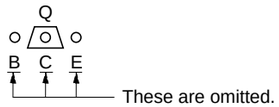
- ○——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ○ : Through hole.
- ▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

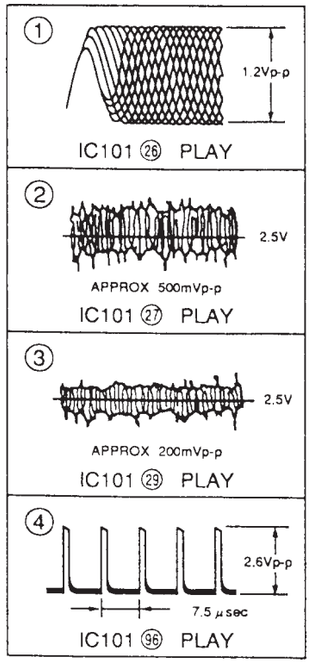
- Indication of transistor.



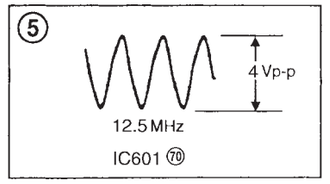


• Waveform

– BD board –

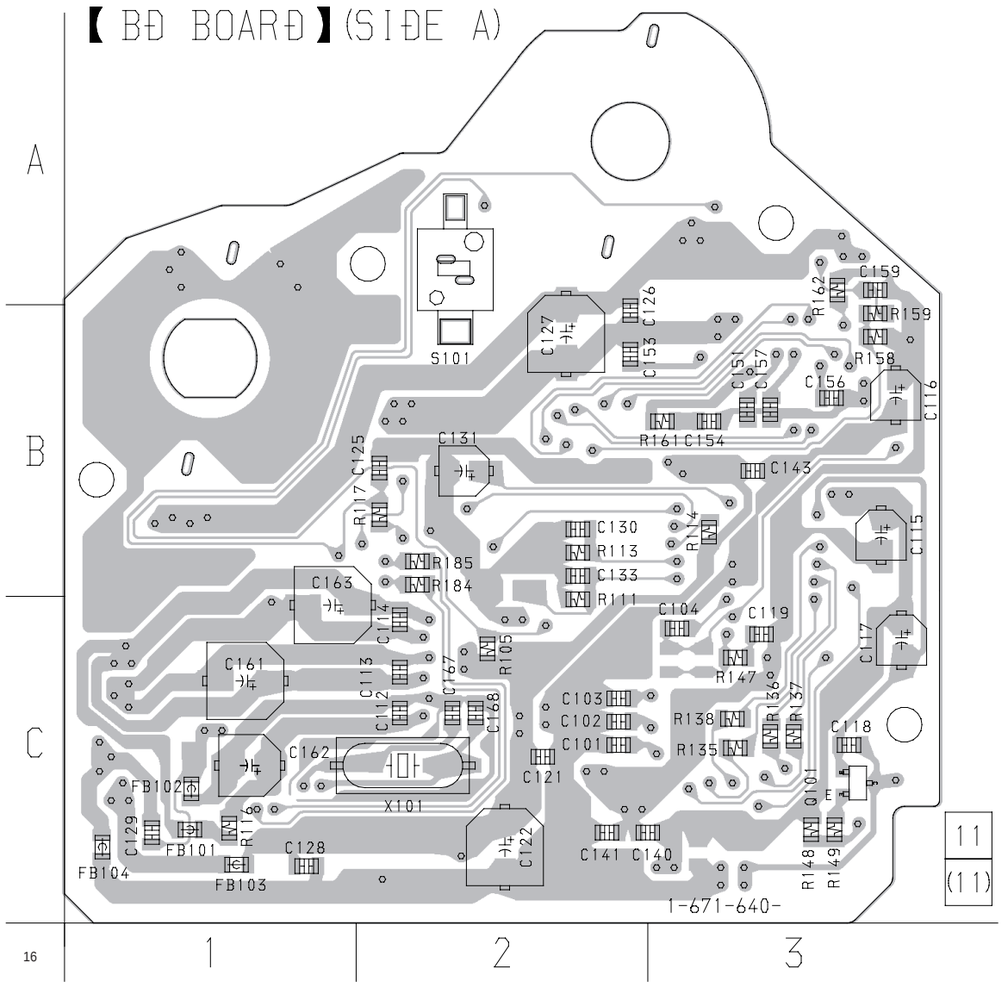


– PANEL board –



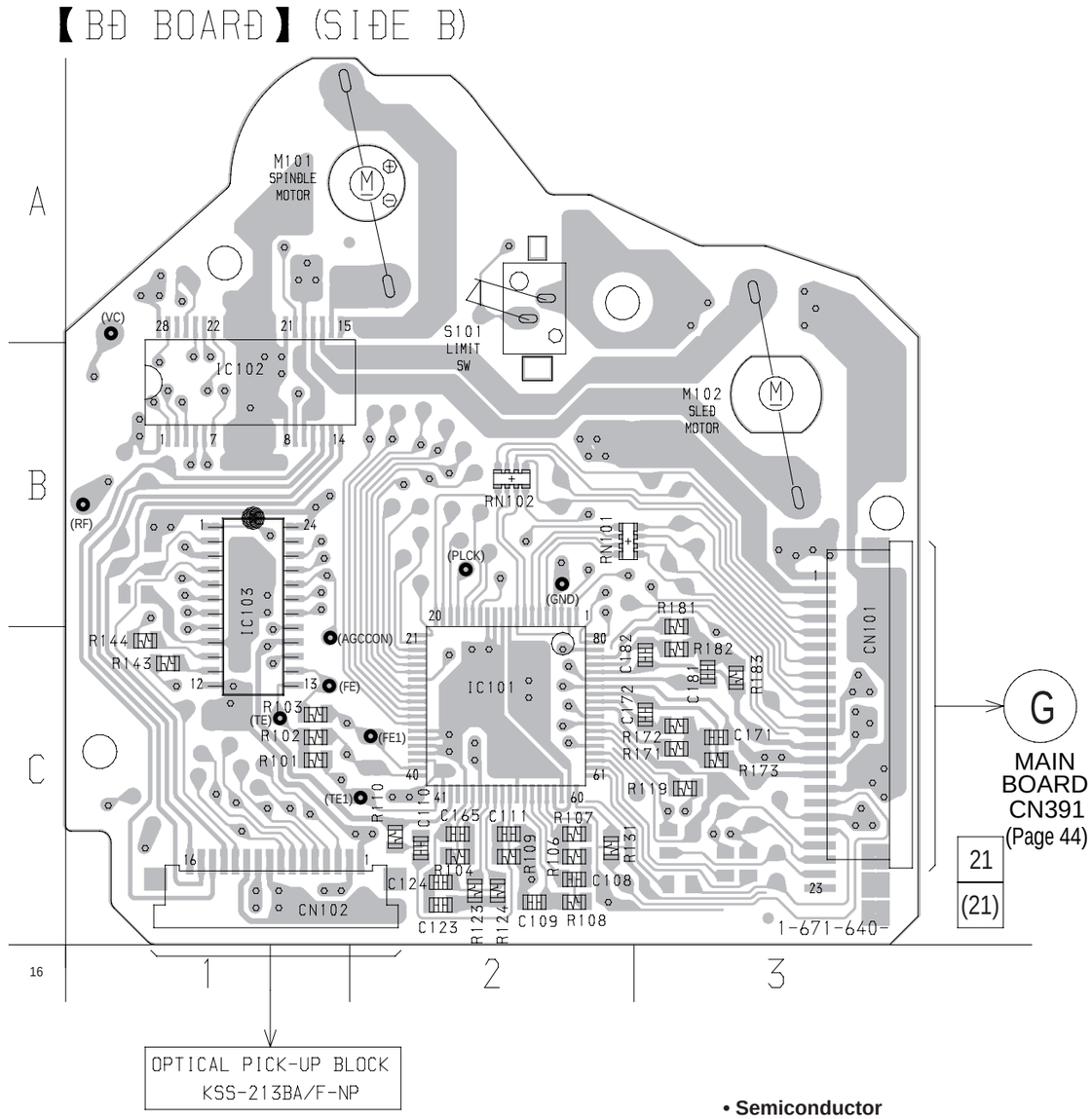
7-3. PRINTED WIRING BOARD — CD SECTION —

• Refer to page 18 for Circuit Boards Location. • Refer to page 27 for Note on Printed Wiring Boards.



• **Semiconductor Location**

Ref. No.	Location
Q101	C-3

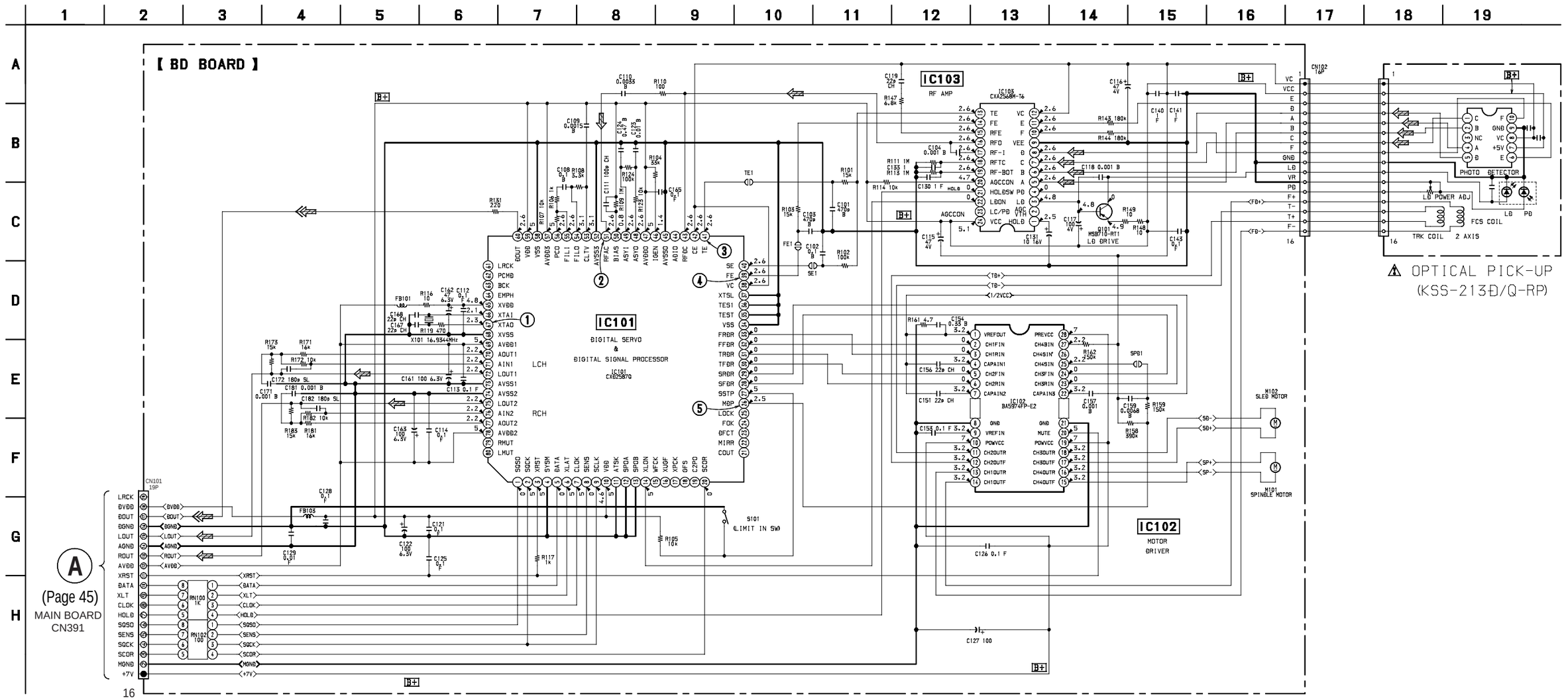


• **Semiconductor Location**

Ref. No.	Location
IC101	C-2
IC102	B-1
IC103	B-1

7-4. SCHEMATIC DIAGRAM —CD SECTION —

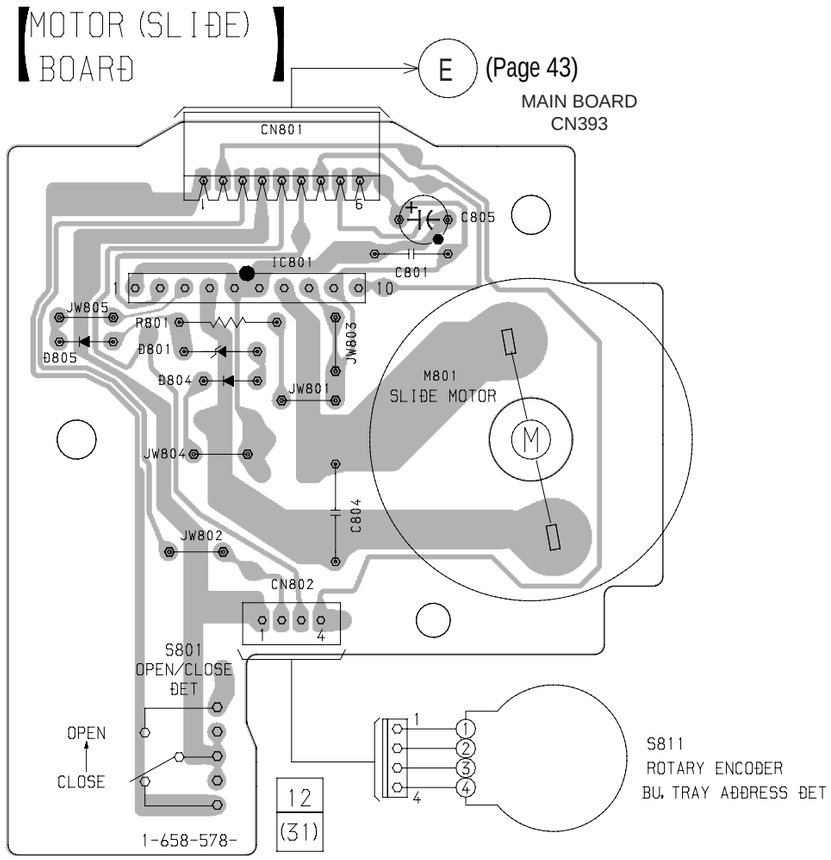
• Refer to page 28 for Waveforms. • Refer to page 63 for IC Block Diagrams. • Refer to page 27 for Note on Shematic Diagram.

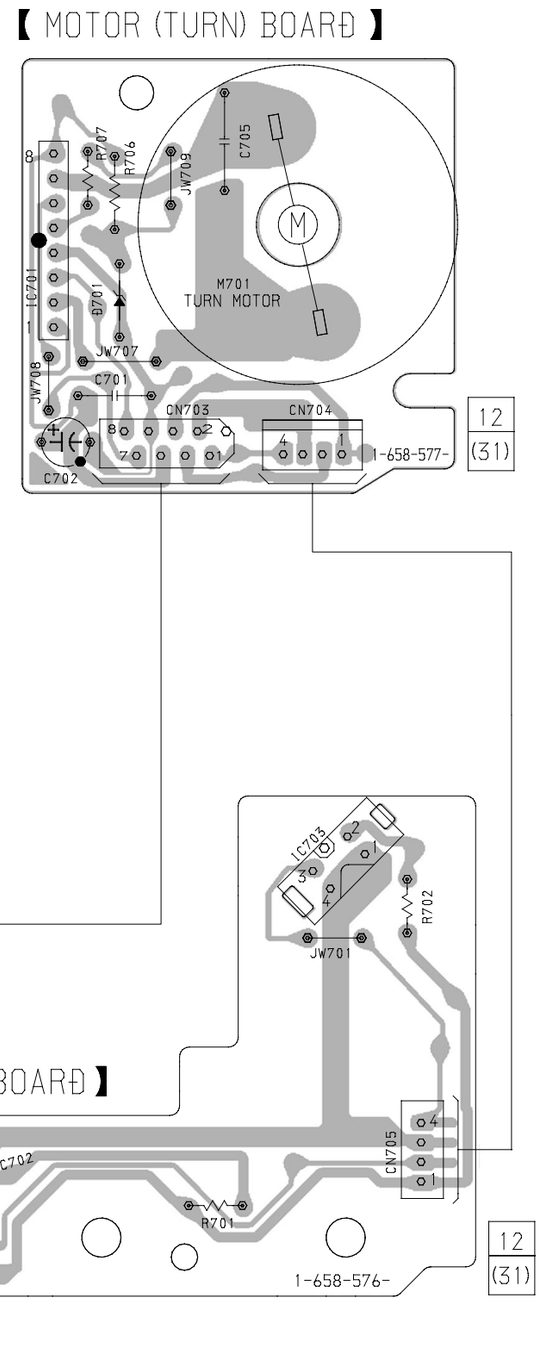


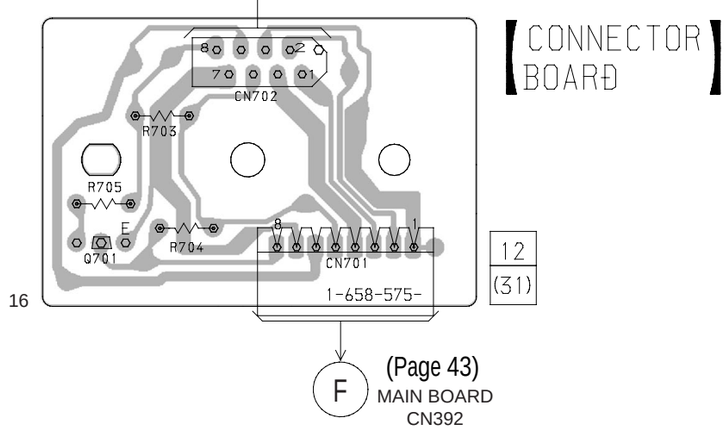
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

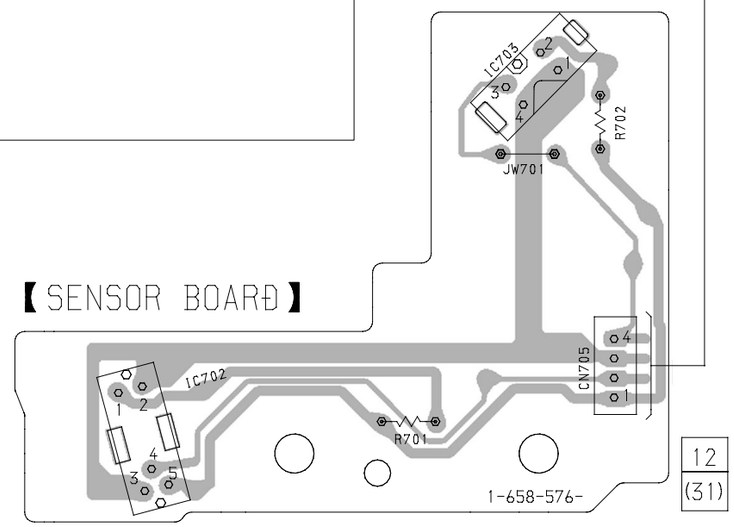
7-5. PRINTED WIRING BOARD — CD MOTOR SECTION —

• Refer to page 18 for Circuit Boards Location. • Refer to page 27 for Note on Printed Wiring Boards.

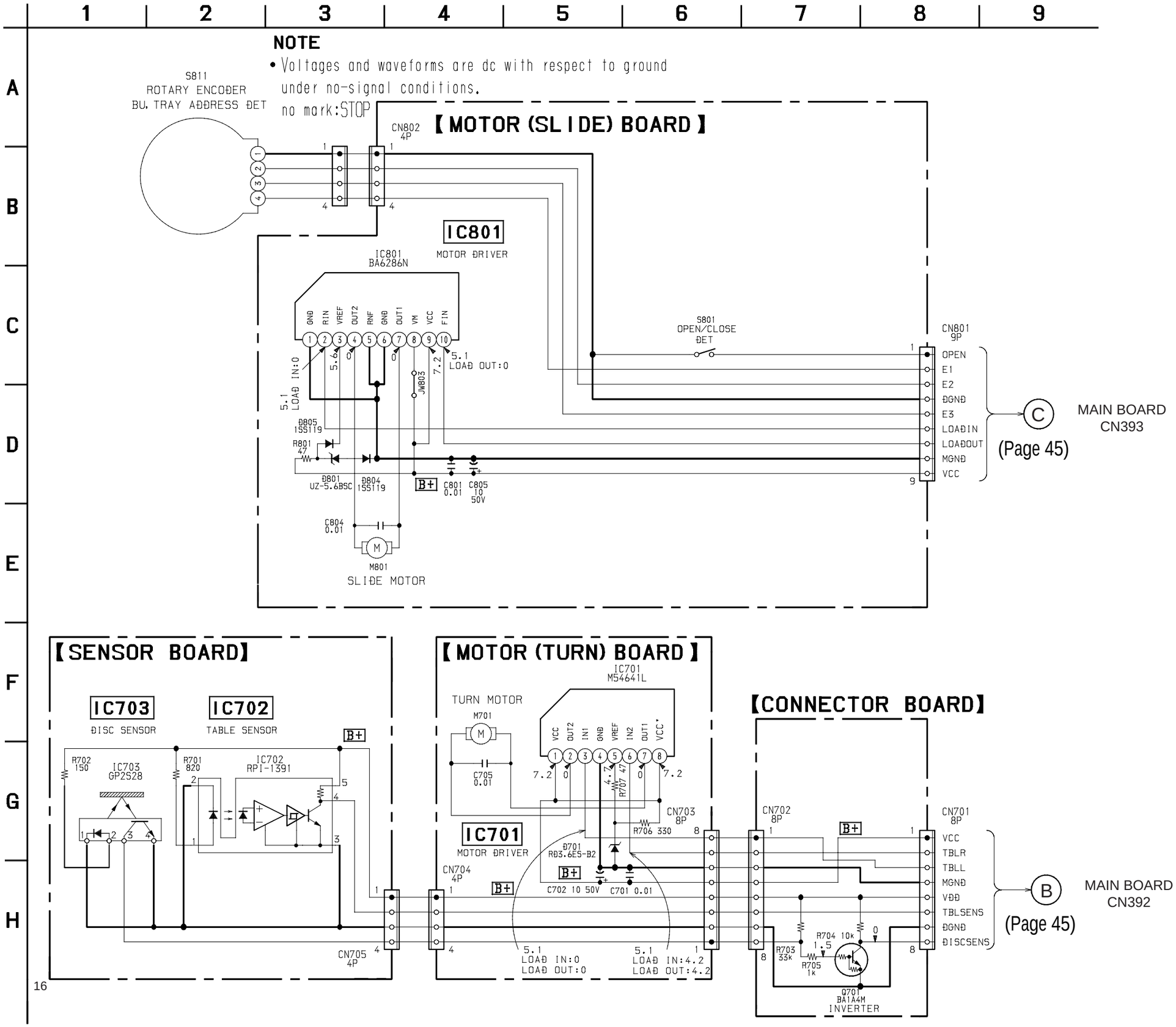






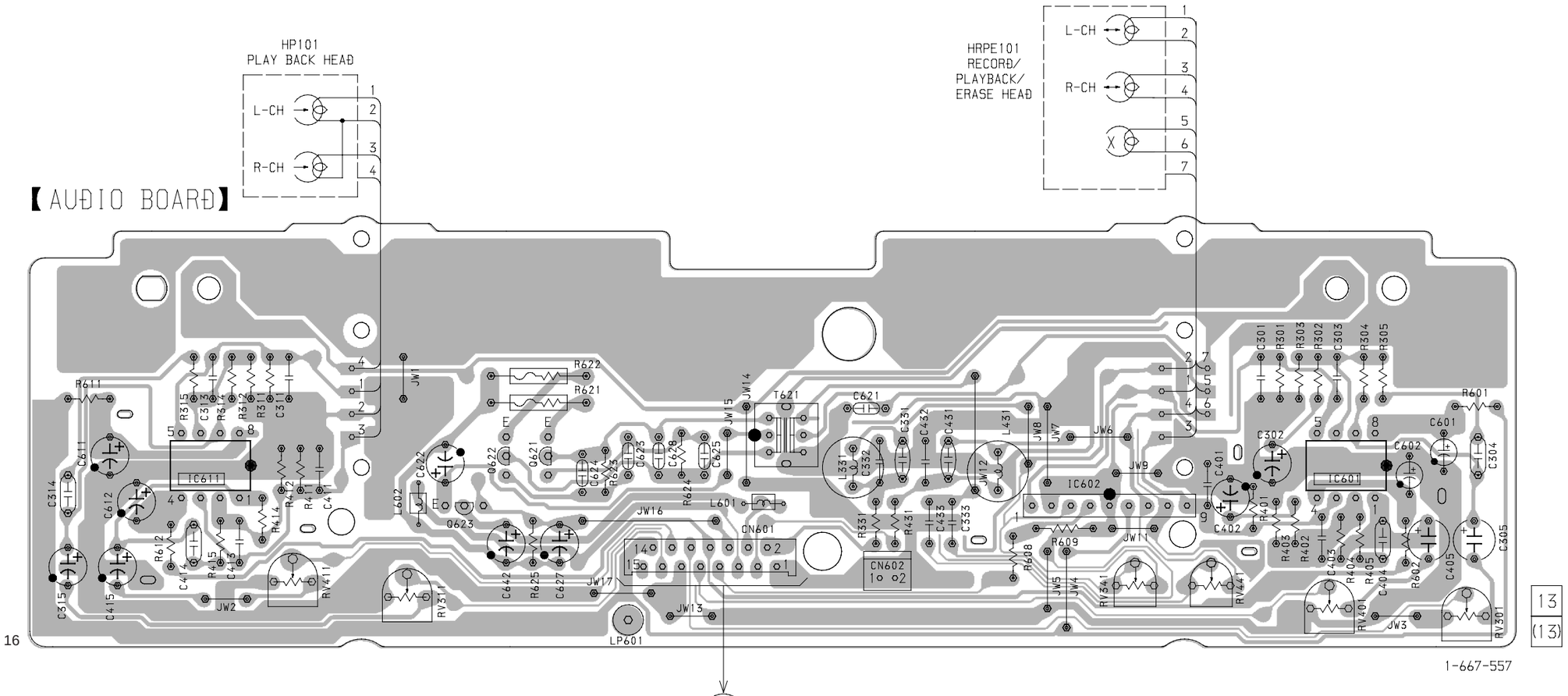


7-6. SCHEMATIC DIAGRAM — CD MOTOR SECTION —



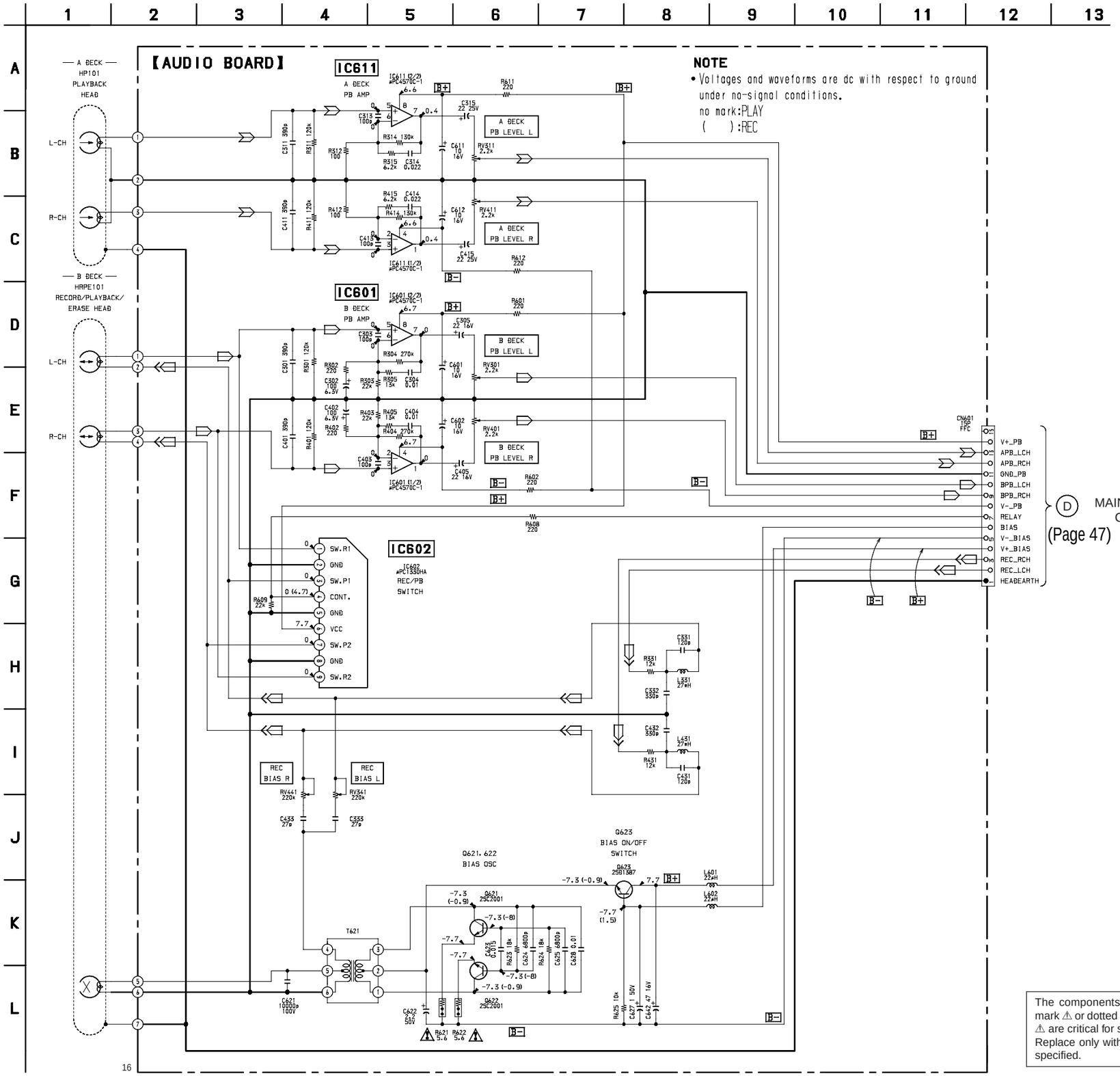
7-7. PRINTED WIRING BOARD — TAPE DECK SECTION —

• Refer to page 18 for Circuit Boards Location. • Refer to page 27 for Note on Printed Wiring Boards.



7-8. SCHEMATIC DIAGRAM — TAPE DECK SECTION —

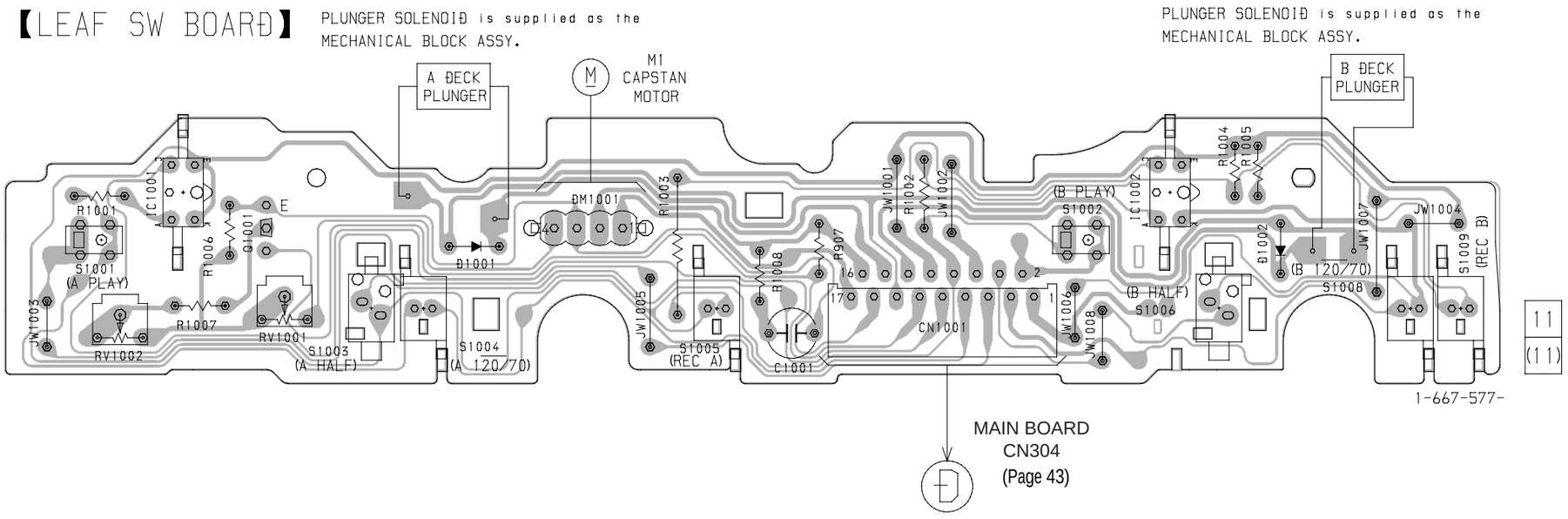
• Refer to page 64 for IC Block Diagrams. • Refer to page 27 for Note on Schematic Diagram.



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

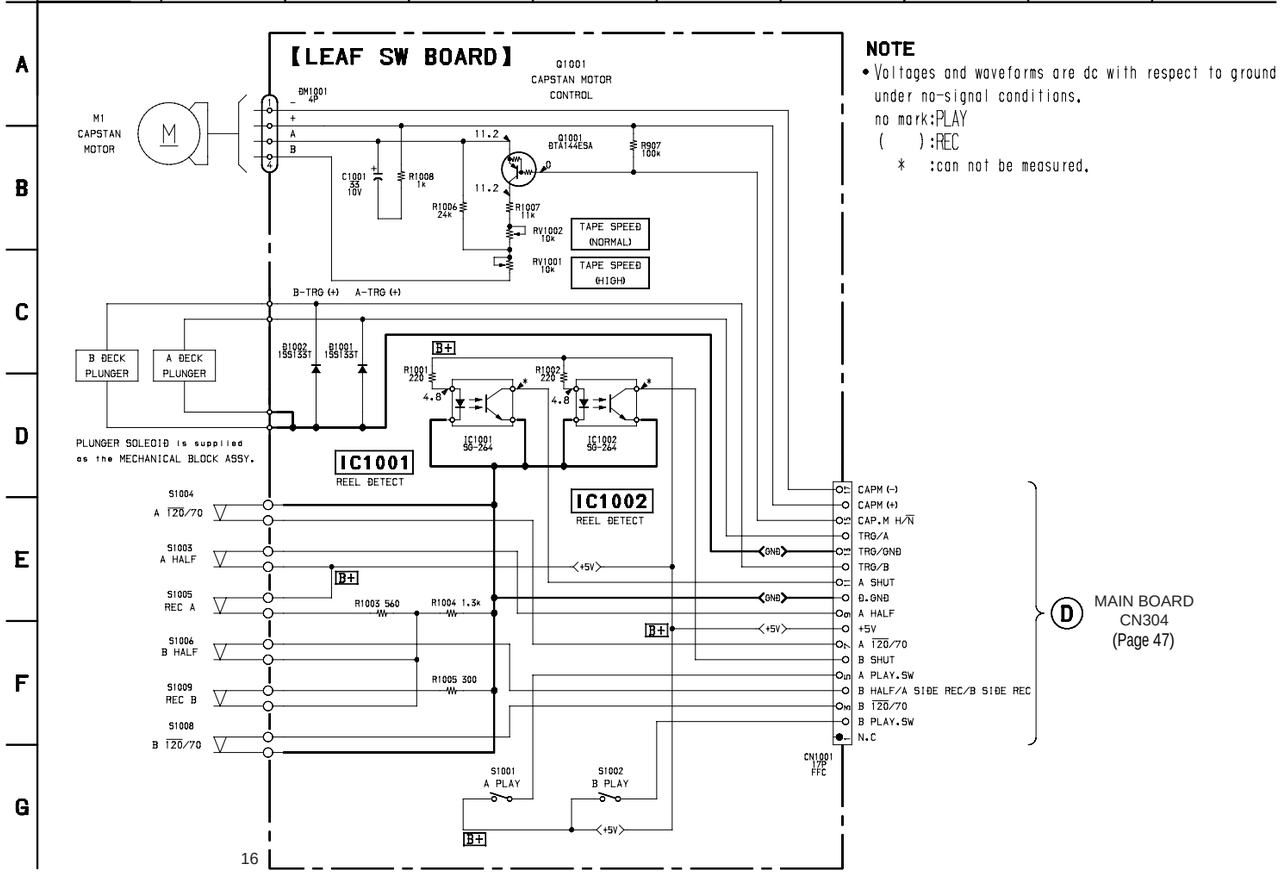
7-9. PRINTED WIRING BOARD —LEAF SW SECTION —

• Refer to page 18 for Circuit Boards Location. • Refer to page 27 for Note on Printed Wiring Boards.



7-10. SCHEMATIC DIAGRAM —LEAF SW SECTION —

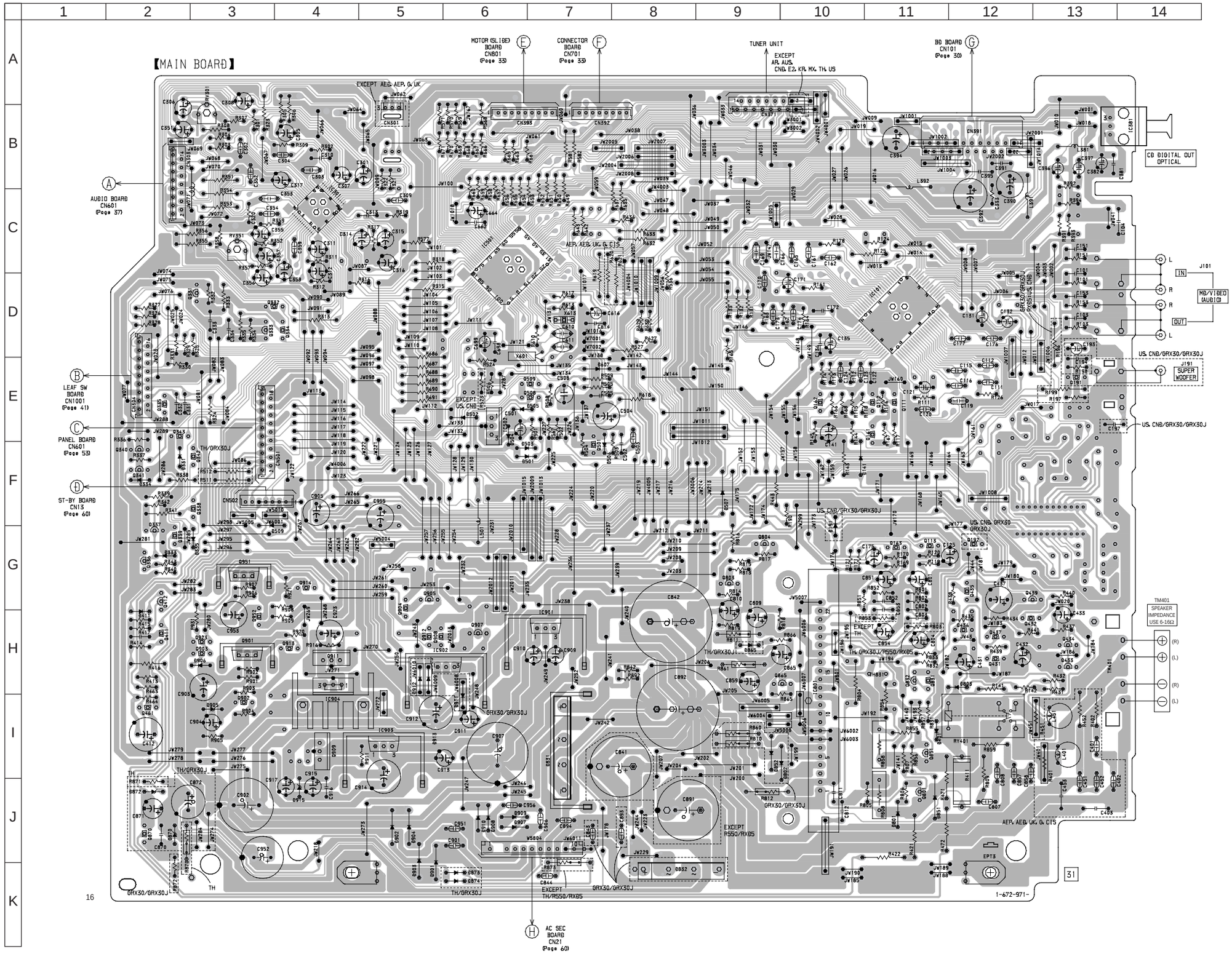
• Refer to page 27 for Note on Schematic Diagram.



NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:PLAY
  ( ):REC
  * :can not be measured.

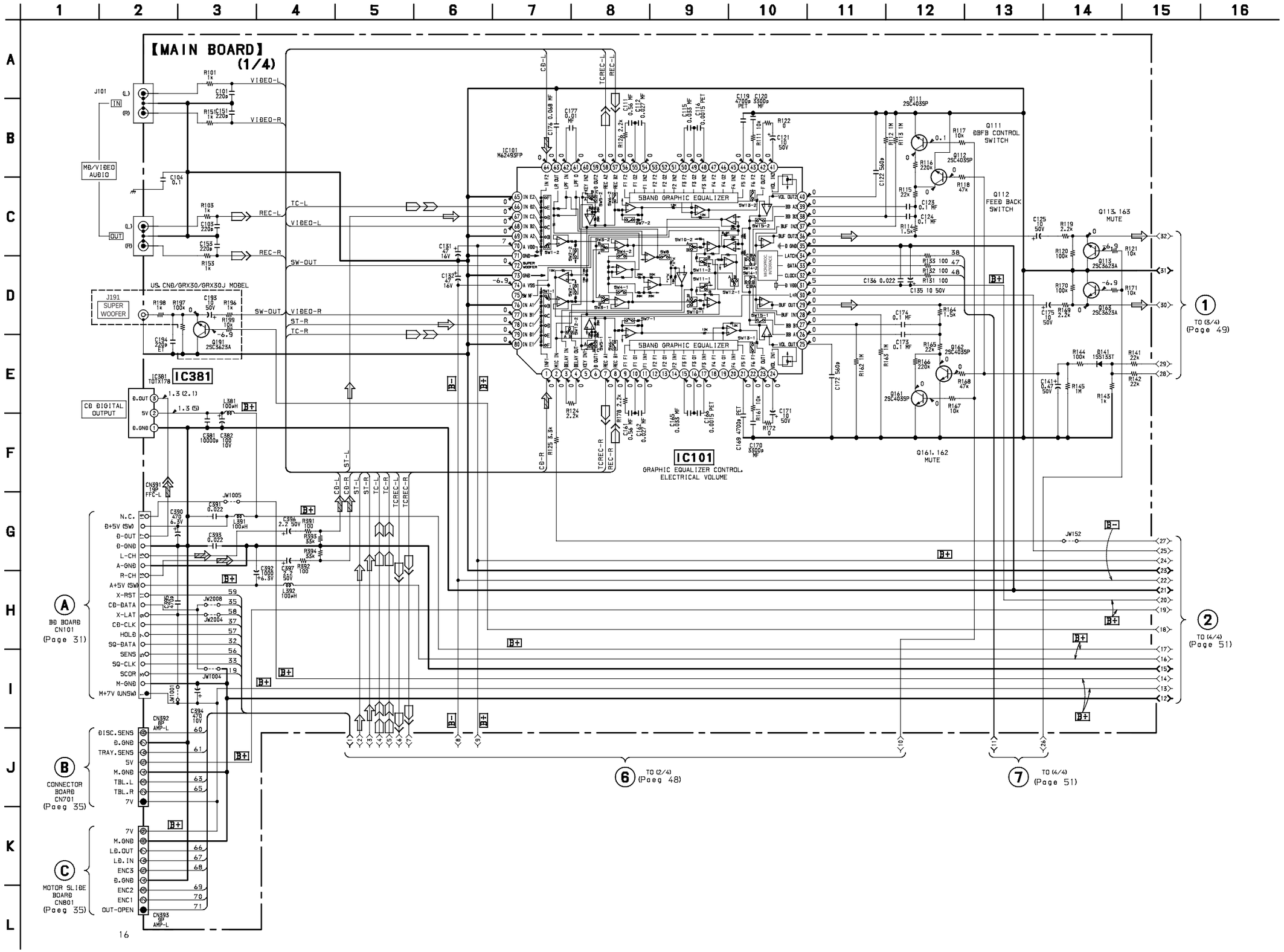
7-11. PRINTED WIRING BOARD —MAIN SECTION —



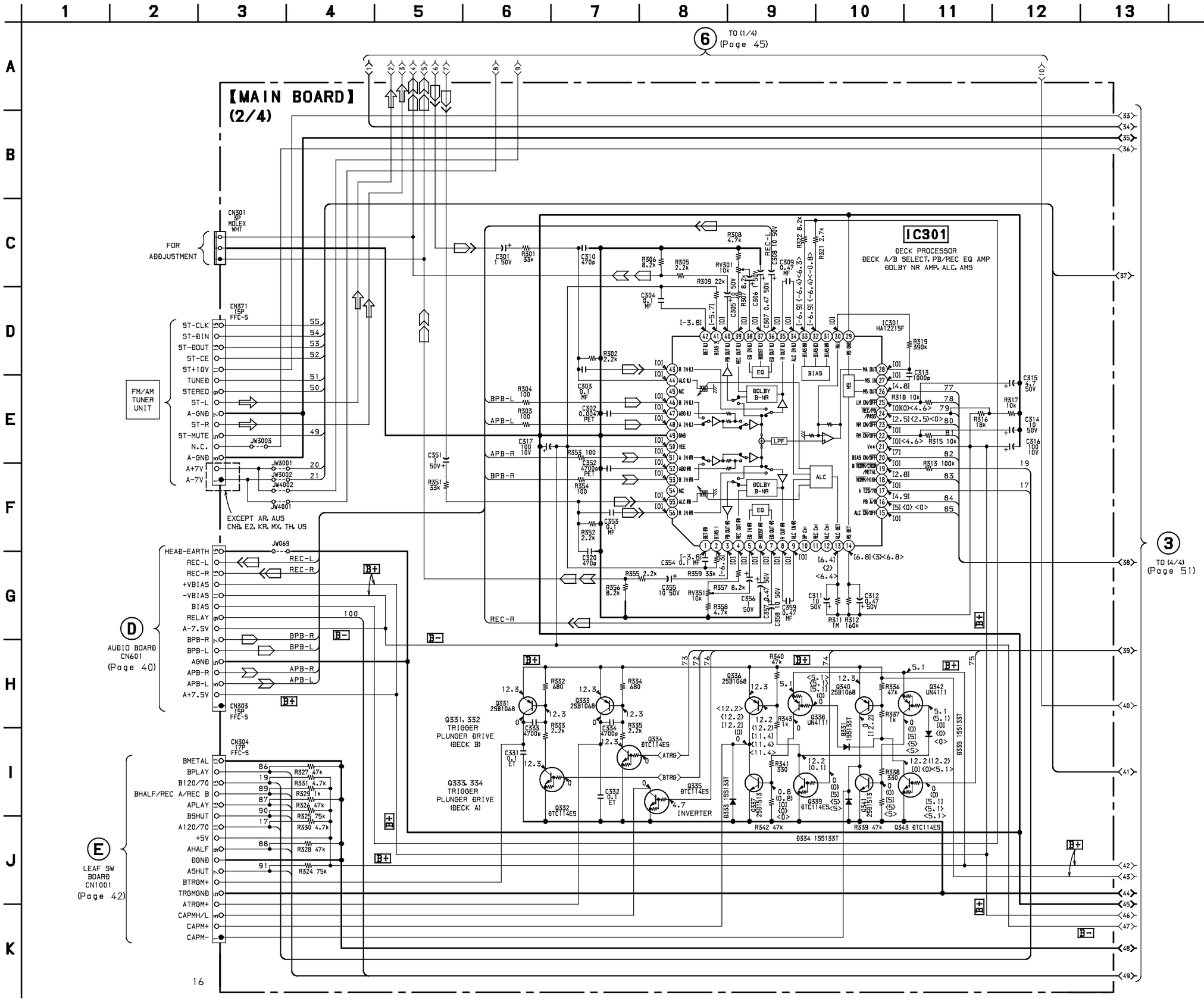
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D141	F-10	Q112	E-11
D191	F-10	Q113	G-11
D331	F-2	Q161	E-11
D333	G-2	Q162	E-10
D334	F-2	Q163	G-11
D335	G-2	Q191	E-13
D401	I-11	Q192	G-12
D411	H-2	Q331	D-3
D501	F-6	Q332	D-3
D502	E-6	Q333	D-3
D503	F-6	Q334	D-4
D504	E-6	Q335	E-2
D505	E-6	Q336	G-2
D506	F-7	Q337	G-2
D507	F-9	Q338	F-2
D509	G-3	Q339	G-2
D801	J-11	Q340	F-2
D802	J-9	Q341	F-2
D803	H-12	Q342	F-2
D831	I-7	Q343	E-2
D832	K-8	Q411	H-2
D851	J-11	Q412	G-2
D852	I-9	Q431	H-12
D865	H-9	Q432	H-12
D870	J-2	Q433	H-13
D872	J-2	Q434	H-13
D873	K-6	Q435	G-12
D874	K-6	Q436	H-12
D901	K-5	Q437	H-12
D902	J-5	Q439	G-13
D903	K-5	Q461	I-2
D904	J-5	Q501	H-5
D905	I-3	Q508	E-6
D906	H-3	Q509	E-6
D907	J-6	Q801	J-11
D908	J-6	Q803	G-9
D909	J-6	Q804	G-9
D910	J-6	Q831	H-11
D911	I-6	Q832	H-11
D912	H-5	Q851	I-11
D913	H-5	Q865	H-9
D915	J-4	Q870	J-2
		Q901	H-3
IC101	D-11	Q902	I-3
IC301	C-4	Q903	H-3
IC381	B-14	Q904	H-5
IC501	C-6	Q905	G-5
IC502	E-6	Q907	H-6
IC801	H-10	Q908	H-5
IC901	H-7	Q909	I-4
IC902	H-5	Q913	H-4
IC903	I-5	Q914	G-4
		Q923	H-3
Q111	E-11	Q951	G-3
		Q952	H-3

7-12. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) —



7-13. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) —



7-14. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) —

【MAIN BOARD】 (3/4)

IC801 POWER AMP

IC801 (1/2)

IC801 (2/2)

Q803, 804 MUTE SWITCH

Q803,804,865 MUTE SWITCH

Q433, 434 DC DEFECT SWTICH

Q435, 436 PROTECTOR

Q432,437 OVER LOAD DETECT SWITCH

Q411, 412, 461 MUTE SWITCH

AEP, AED, CIS, G, UK MODEL

AEP, AED, UK G, CIS MODEL

TM401 SPEAKER IMPEDANCE USE 6-16Ω

L-CH / LGND / RGND / R-CH

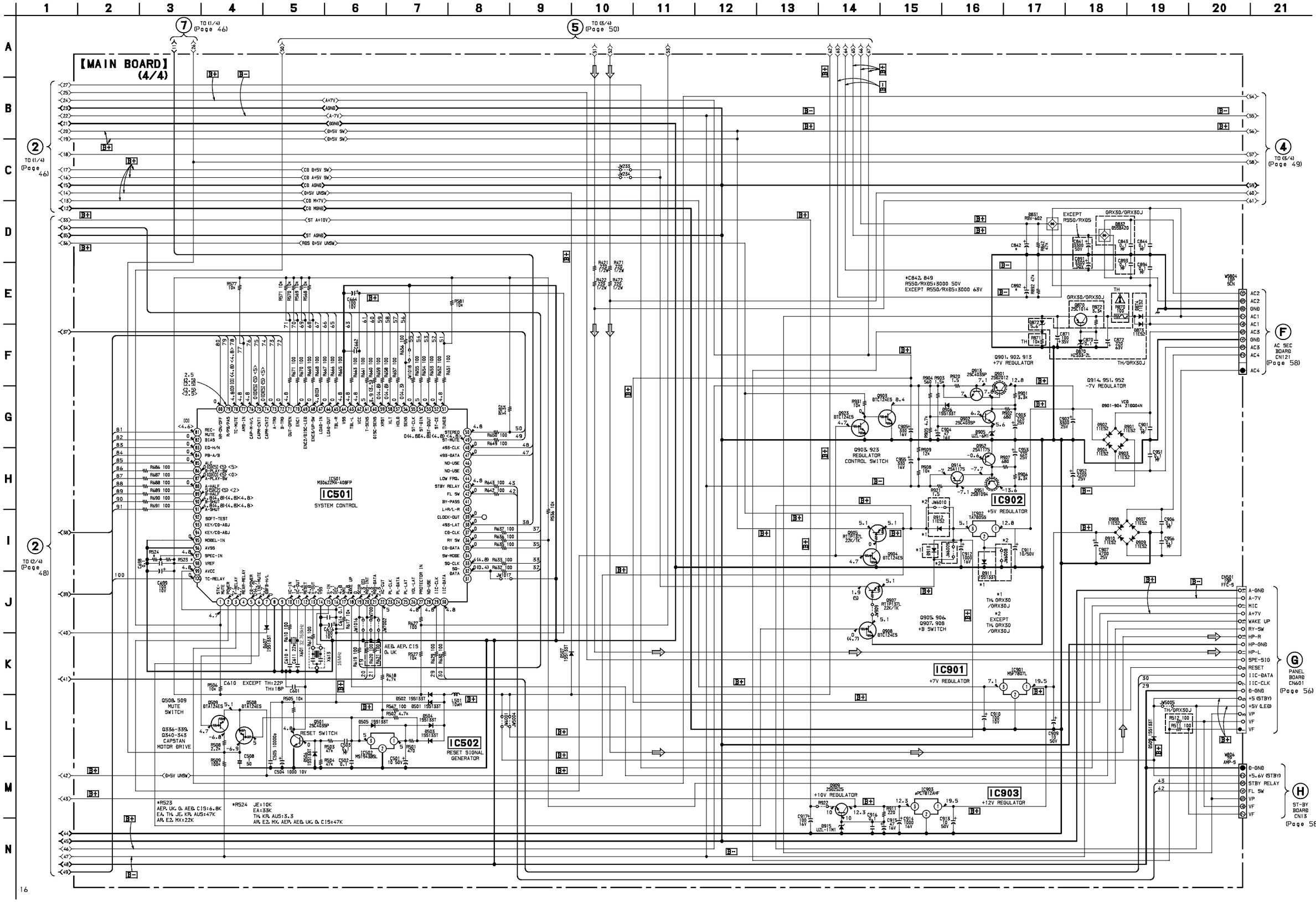
TO (1/4) (Page 46)

TO (4/4) (Page 52)

TO (4/4) (Page 51)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

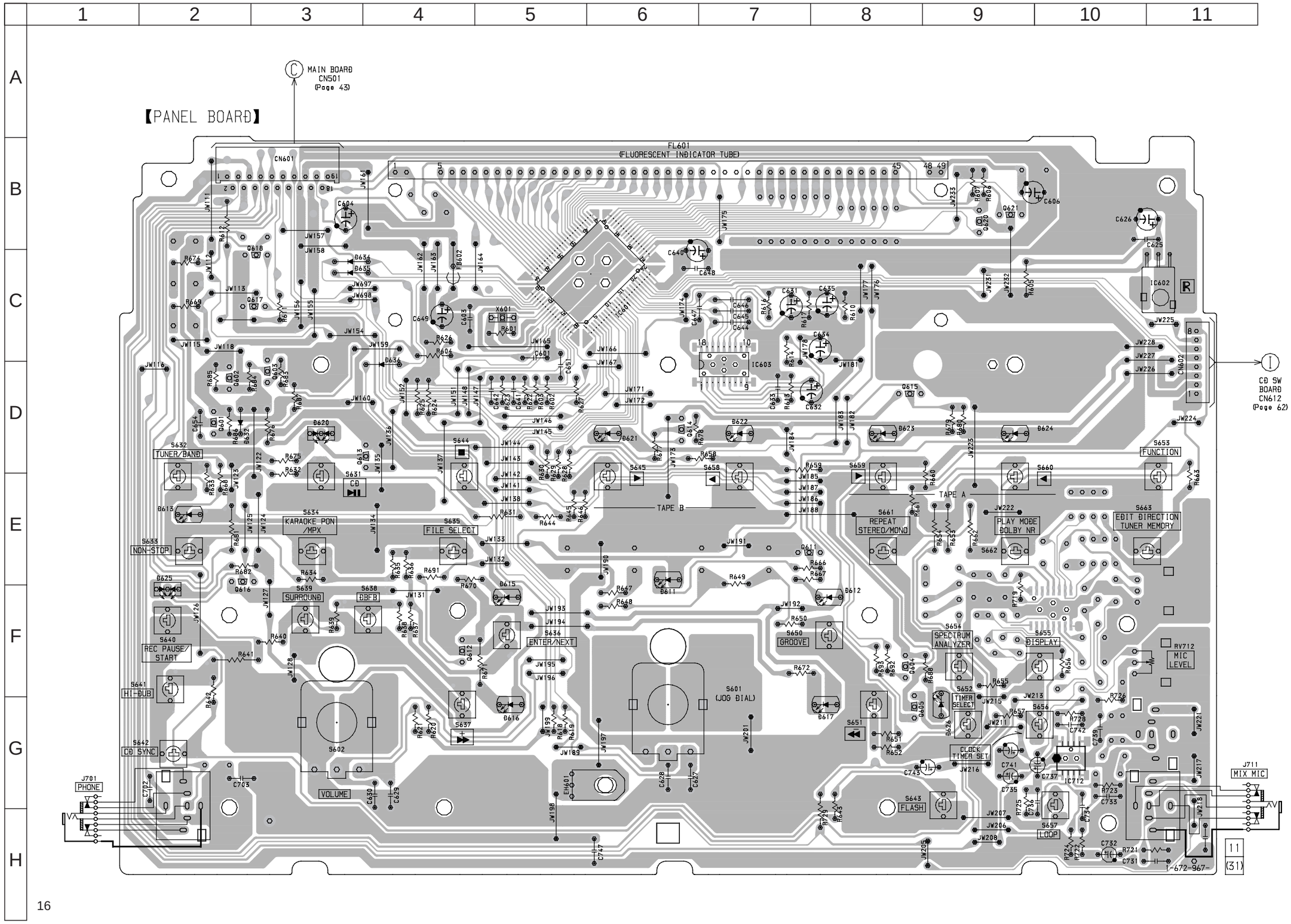
7-15. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —



7-16. PRINTED WIRING BOARD — PANEL SECTION —

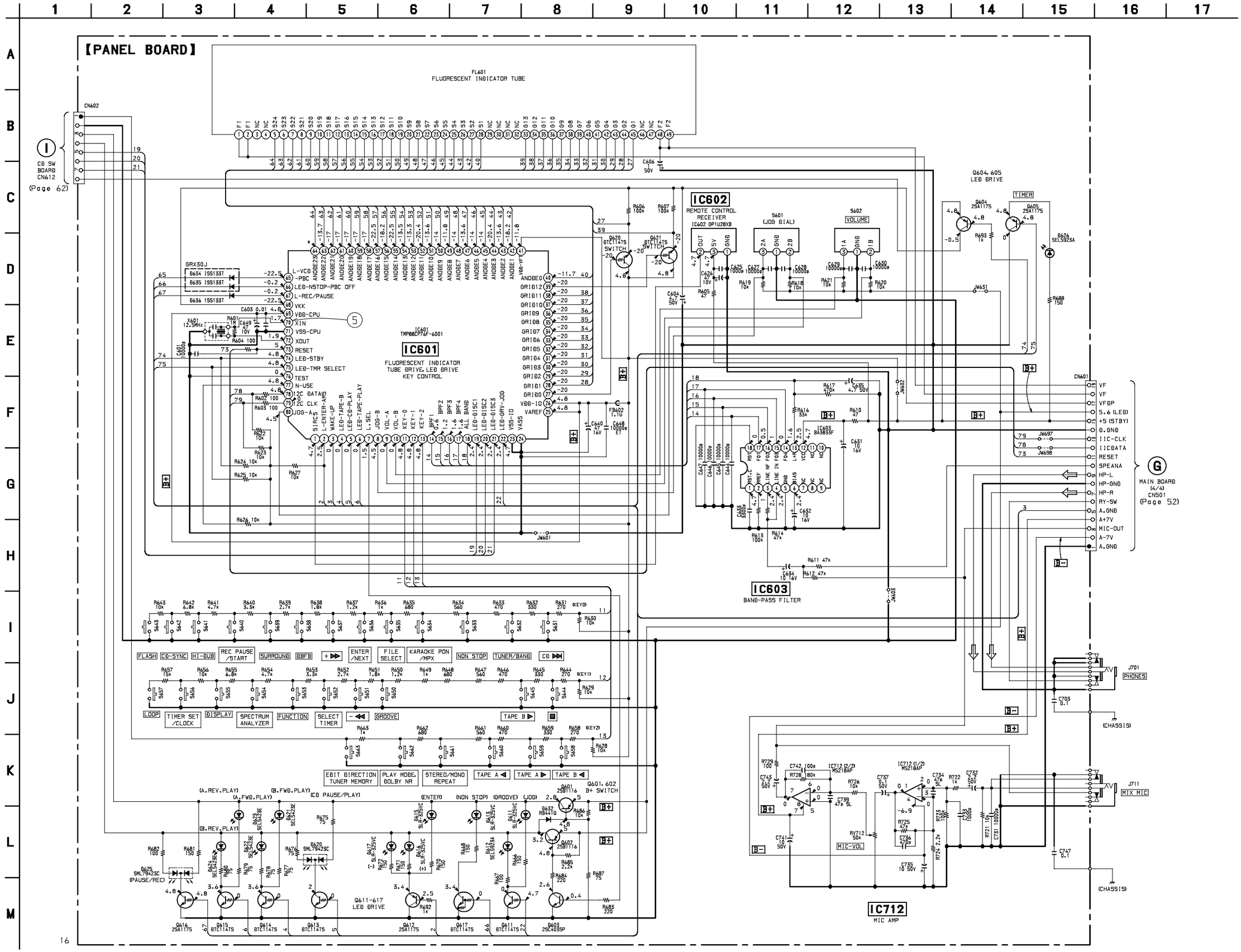
• **Semiconductor Location**

Ref. No.	Location
D611	E-6
D612	F-8
D613	E-2
D615	F-5
D616	G-5
D617	G-8
D620	D-3
D621	D-6
D622	D-7
D623	D-8
D624	D-9
D625	F-2
D632	D-2
D634	C-3
D635	C-3
D636	C-4
IC601	C-6
IC602	C-11
IC603	D-7
IC712	G-10
Q601	D-2
Q602	D-2
Q603	D-3
Q604	F-8
Q605	G-8
Q611	E-7
Q612	F-4
Q613	D-3
Q614	D-6
Q615	D-8
Q616	F-2
Q617	C-2
Q620	B-9
Q621	B-9

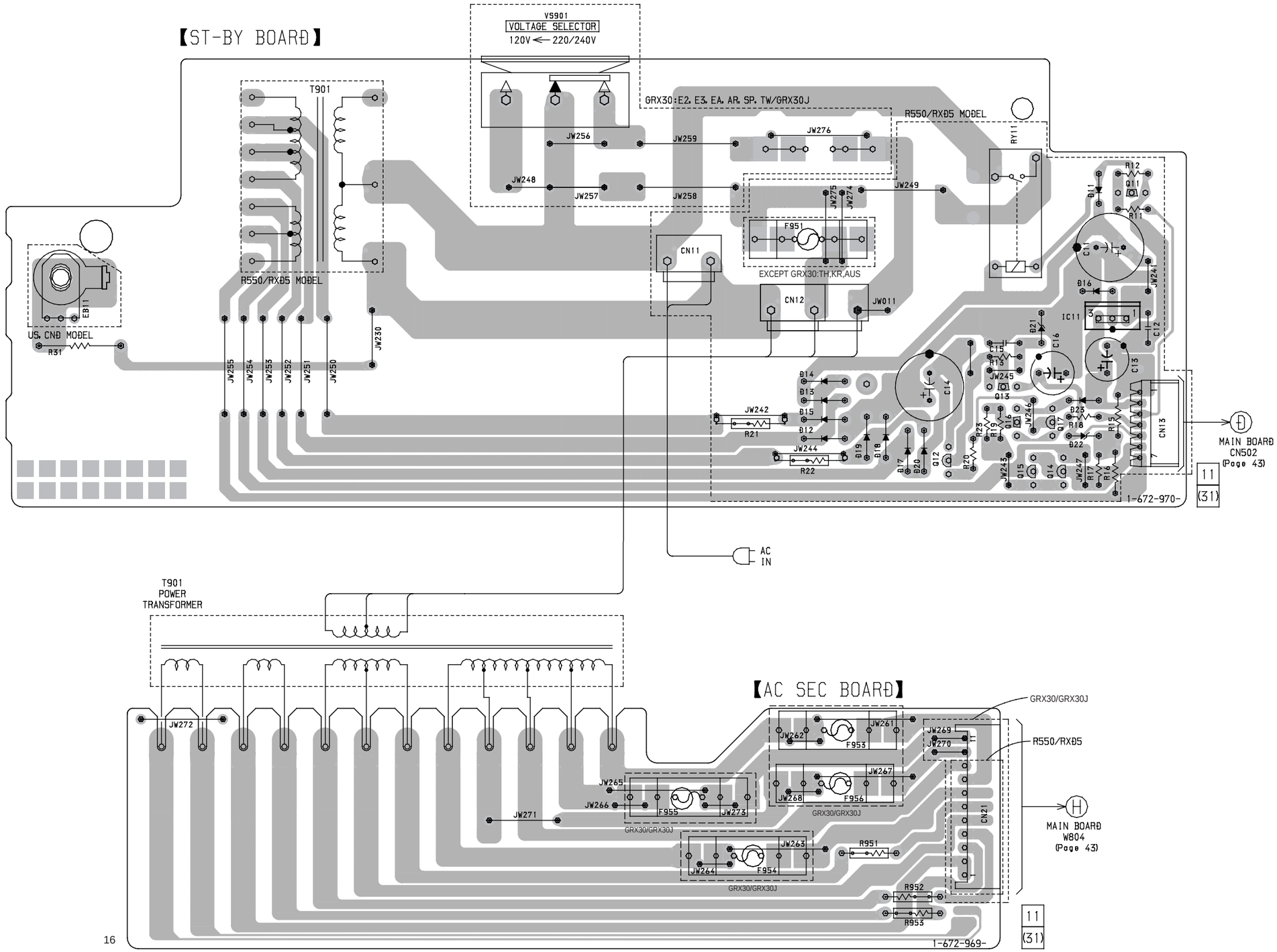


16

7-17. SCHEMATIC DIAGRAM — PANEL SECTION —

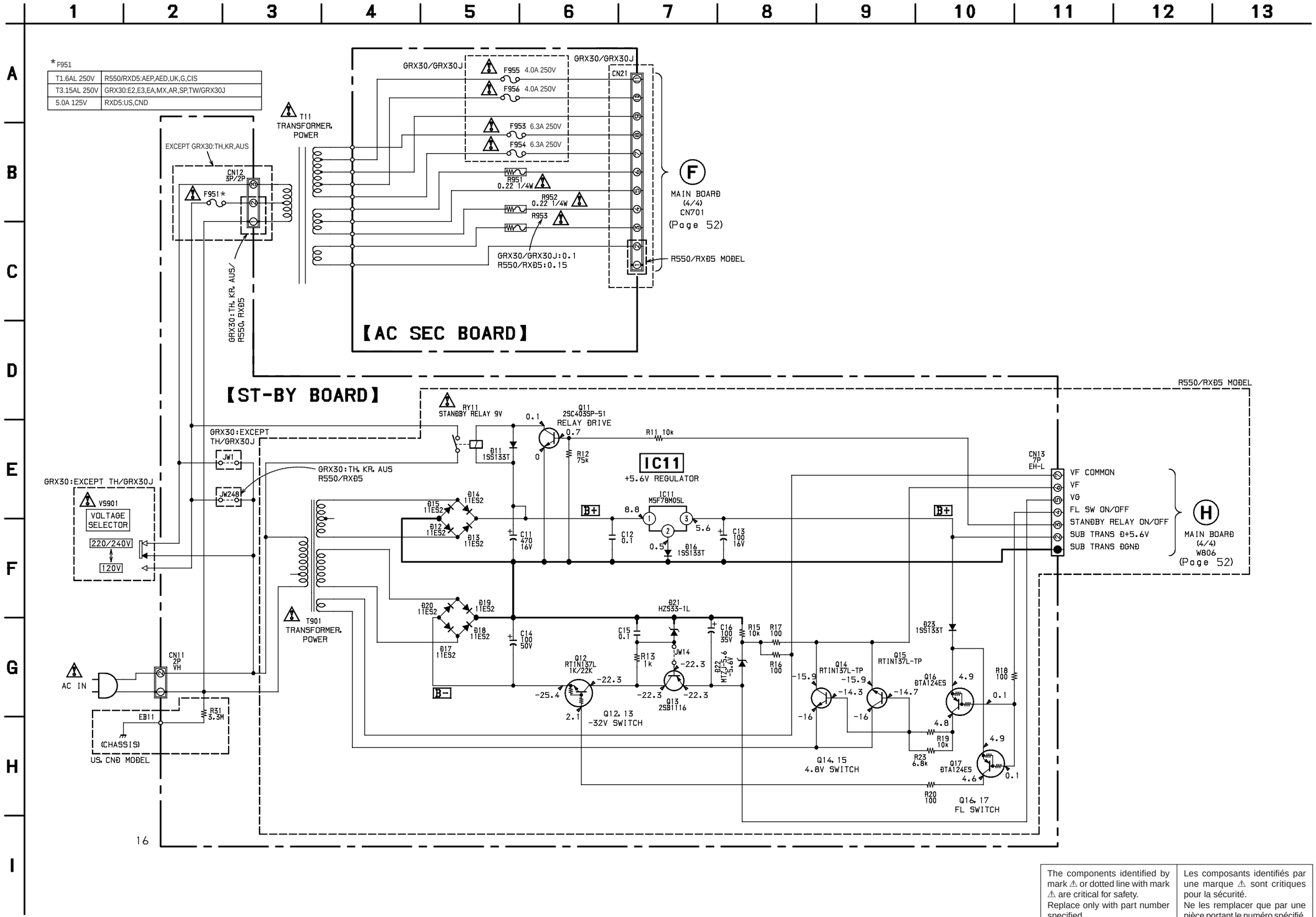


7-18. PRINTED WIRING BOARD — AC SEC STANBY SECTION —



16

7-19. SCHEMATIC DIAGRAM — AC SEC STANDBY SECTION —



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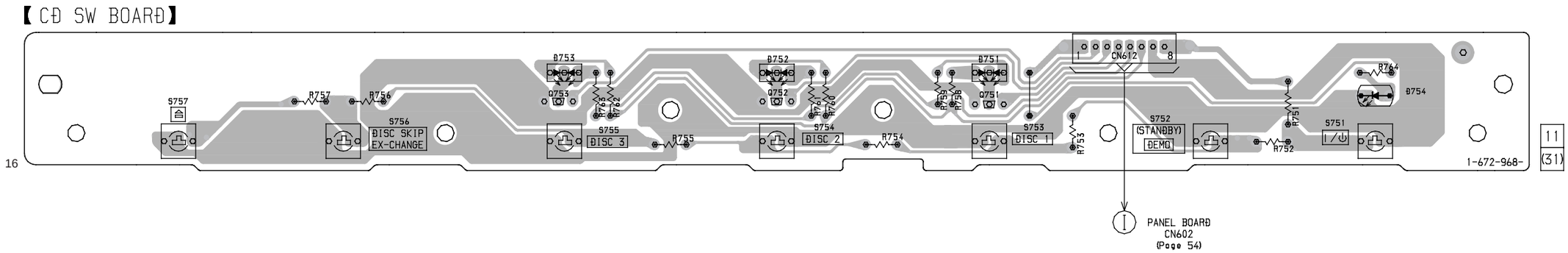
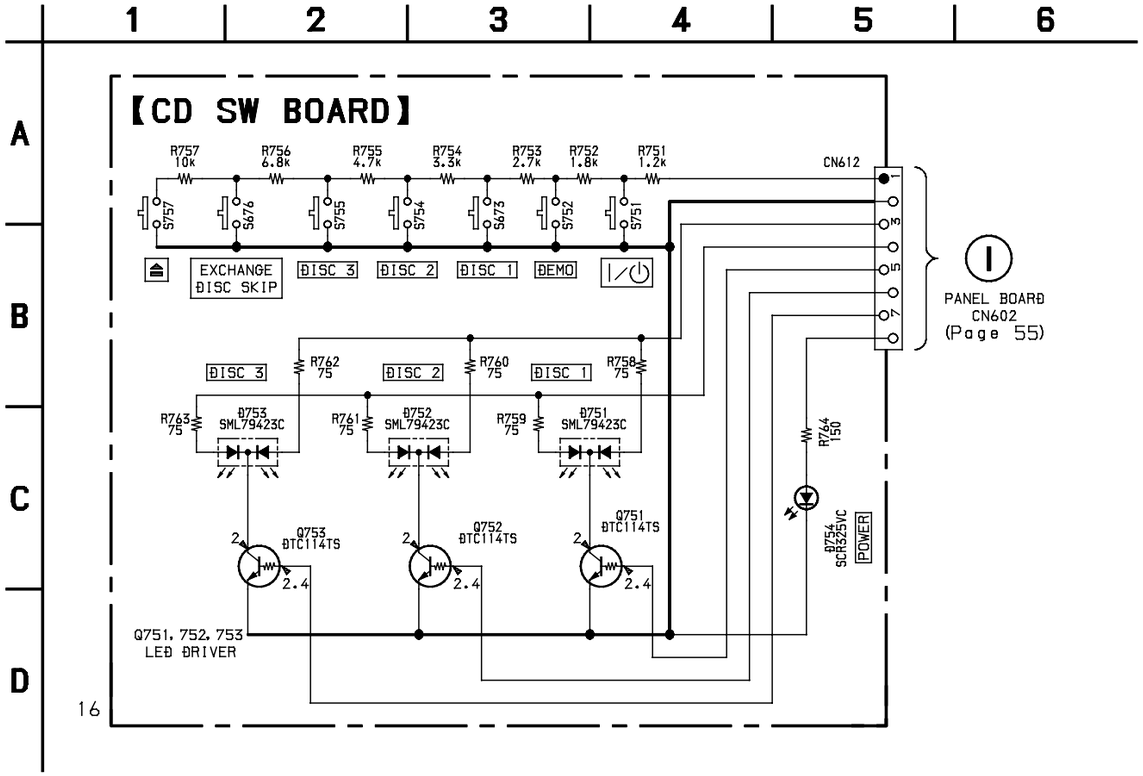
7-20. PRINTED WIRING BOARD — CD SW SECTION —

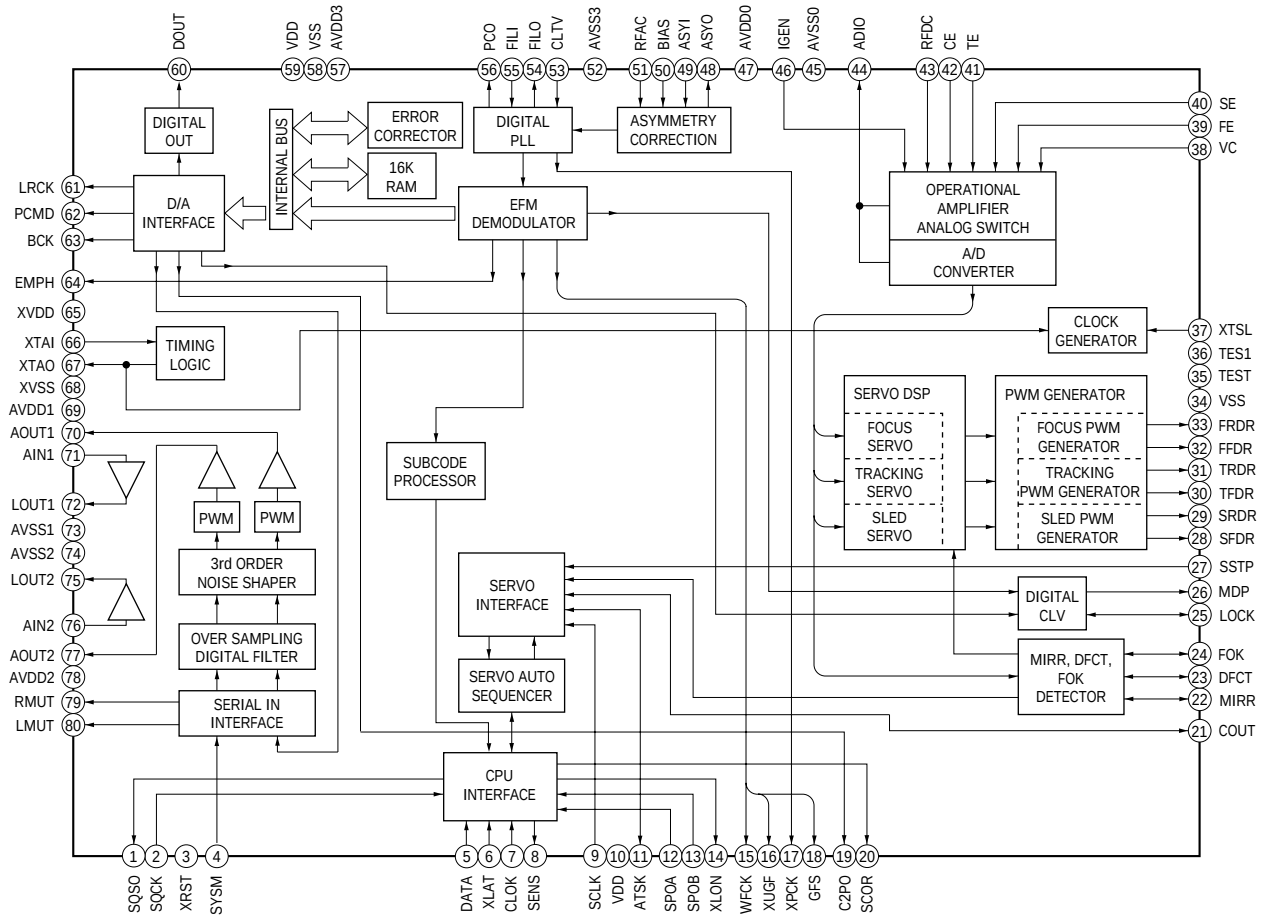


7-21. SCHEMATIC DIAGRAM — CD SW SECTION —

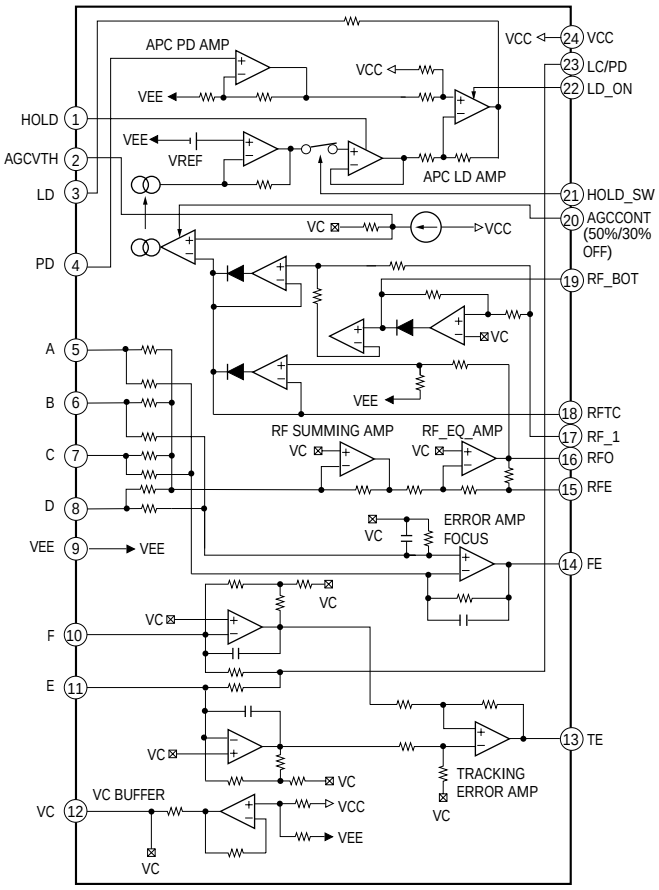


7-22. IC BLOCK DIAGRAMS
— BD Board —

IC101 CXD2587Q

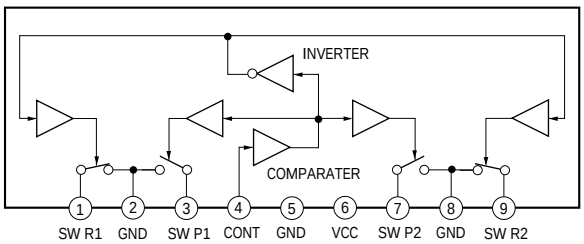


IC103 CXA2568M-T6



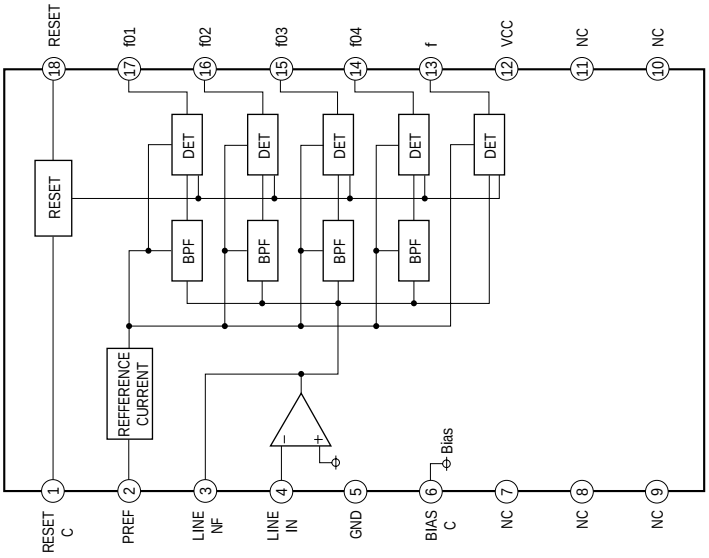
— AUDIO Board —

IC602 µPC1330HA



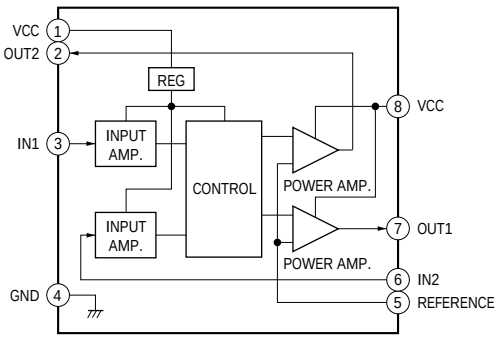
— PANEL Board —

IC603 BA3833FP



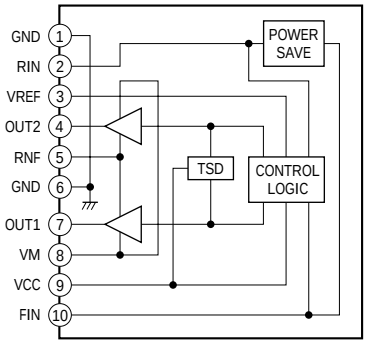
— MOTOR (TURN) Board —

IC701 M54641L



— MOTOR (SLIDE) Board —

IC801 BA6286N



7-23. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 M30622MA-A07FP

Pin No.	Pin Name	I/O	Description
1	STL-POWER	O	STK ON(H)/OFF(L)
2	POWER	O	POWER ON(H)/OFF(L)
3	F-RELAY	O	FRONT-RELAY ON(H)/OFF(L)
4	R-RELAY	O	REAR-RELAY ON(H)/OFF(L)
5	CD-RELAY	O	CD-POWER ON(H)/OFF(L)
6	LINE-MUTE	O	TA LINE-MUTE ON(L)/OFF(H)
7	DBFB-H/L	O	DBFB-HIGH(L)/LOW(H)/OFF(H)
8	GND	—	Ground
9	GND	—	Ground
10	Xcin	I	SUB CLOCK IN
11	Xcout	O	SUB CLOCK OUT
12	RESET	I	SYSTEM RESET IN
13	Xout	O	MAIN SYSTEM CLOCK OUT
14	Vss	—	Vss
15	Xin	I	MAIN SYSTEM CLOCK IN(16MHz)
16	Vcc	O	POWER SUPPLY(+5V)
17	NIMI	I	PULL UP(EVER+5)CAN'T USE
18	WAKE_UP	I	WAKE UP(L)
19	SCOR	I	CD Q-DATA REQUEST
20	RDS-INT	I	RDS INT
21	RDS-DATA	I	RDS DATA
22	AC-CUT	I	AC CUT ON(L)/OFF(H) CHECK
23	PL-CLK	O	PRO-LOGIC CLOCK
24	PL-DATA	O	PRO-LOGIC DATA
25	PL-LAT	O	PRO-LOGIC LAT1
26	TIMER LED	O	TIMER LED ON(H)/OFF(L)(forFH)
27	EAKER PROTE	I	SPEAKER PROTECT ON(L)/OFF(H)
28	V_MUTE	O	VIDEO MUTE ON(H)/OFF(L)(for LBT)
29	ICC_CLK	O	IIC SCL
30	ICC_DATA	O	IIC SDA
31	N.C.	—	Not used
32	SQ-DATA-IN	I	CD DATA IN
33	SQ-CLK	O	CD DATA CLK
34	N.C.	—	Not used
35	CD-DATA	O	CD DATA
36	HEAD PHONE	I	HEAD PHONE detection Detected (H)/Not detected (L)
37	CD-CLK	O	CD CLK
38	493-LT	O	62493 LAT
39	CK-OUT/STBY	O	CLOCK CHECK/STBY-LED(H)(FH)
40	VC L+R/L–R	O	VIRTUAL CINEMA L+R/L-R(FH LCD)
41	VC BYPASS	O	VIRTUAL CINEMA BYPASS(FH LCD)
42	FL SW	O	FL FILAMENT ON(L)/OFF(H)(for ECO)
43	STBY_RELAY	O	MAIN POWER ON(H)/OFF(L)(for ECO)
44	BASS_FREQ	O	FREQ High(H)/LOW(L)(for SYNC BASS)
45	FUNC_SEL1	O	FUNC_SEL1(LBT)
46	FUNC_SEL0	O	FUNC_SEL0(LBT)/OPT SEL(AMD, MK33)
47	49X-DATA	O	6249X DATA
48	49X-CLK	O	6249X CLOCK
49	ST-MUTE	O	TUNER MUTE
50	STEREO	I	STEREO IN(L)/OFF(H)

Pin No.	Pin Name	I/O	Description
51	TUNED	I	TUNED IN(L)/OFF(H)
52	ST-CE	O	TUNED CHIP ENB
53	ST-DOUT	O	TUNER DATA OUT
54	ST-DIN	I	TUNER DATA IN
55	ST-CLK	O	TUNER CLOCK
56	SENS	I	From CXP2587 SENS
57	HOLD	O	MODE
58	XLT	O	CD LAT
59	XRST	O	CD RESET
60	DISC-SENS	I	DISC SENSOR
61	T-SENS	I	TABLE SENSOR
62	Vcc	O	POWER SUPPLY(+5V)
63	TBL-L	O	TABLE-L
64	Vss	—	Ground terminal
65	TBL-R	O	TABLE-R
66	LOAD-OUT	O	LOAD OUT
67	LOAD-IN	O	LOAD IN
68	ENC3/UP_SW	I	CDM38 ENCODER IN/CDM37 UP SW
69	ENC2/DISC LED	O	DM38 ENCODER IN/CDM37 DISC LE
70	ENC1/IN SW	I	CDM38 ENCODER IN/CDM13 IN SW
71	OUT-OPEN	I	CDM38 OUT OPEN SW
72	B-TRG	O	TCM-B TRIGGER OUT ON(H)/OFF(L)
73	A-TRG	O	TCM-A TRIGGER OUT ON(H)/OFF(L)
74	CAPM-CNT2	O	Capstan L (reverse rotation)/H (normal rotation)/L (STOP)
75	CAPM-CNT1	O	Capstan H (reverse rotation)/L (normal rotation)/L (STOP)
76	CAP-M-H/L	O	CAP-MOTOR High(H)/Low(L)
77	AMS-IN	I	AMS SIGNAL IN (L)/OFF (H)
78	TC-MUTE	O	TC LINE MUTE ON (H)/OFF (L)
79	REC/PB/PASS		REC (L)/PB (Z)/PASS (H)
80	DOLBY NR	O	DOLBY NR ON (H)/OFF (L)
81	REC-MUTE	O	REC MUTE ON (L)/OFF (H)
82	BIAS	O	BIAS ON(H)/OFF(L)
83	EQ-H/N	O	EQ HI(H)/NORM(L)
84	PB-A/B	O	TC A (L)/B (H) SELECT
85	ALC	O	ALC ON (L)/OFF (H)
86	B-PLAY-SW	I	TCM-B PLAY SW IN
87	A-PLAY-SW	I	TCM-A PLAY SW IN
88	A-HALF	I	A deck HALF
89	B-HALF	I	B deck HALF
90	B-SHUT	I	TCM-B REEL PULSE
91	A-SHUT	I	TCM-A REEL PULSE
92	SOFT-TEST	O	SOFT CHECK OUT
93	AD PHONE MU	O	HEAD PHONE MUTE ON (L)/OFF (H)
94	KEY/CD ADJ	I	KEY (for jig)/CD adjustment
95	MODEL-IN	I	MODEL IN
96	Avss	—	Analog Ground
97	SPEC-IN	I	SPEC IN
98	Vref	O	Analog Reference Voltage
99	Avcc	O	Analog Power Supply
100	TC-RELAY	O	TC RELAY ON (H)/PFF (L)

- **PANEL BOARD IC601 TMP88CP76F-6001 (FLUORESCENT INDICATOR TUBE DRIVE, LED DRIVE, KET CONTROL)**

Pin No.	Pin Name	I/O	Description
1	SIRCS	I	Remote control signal input from the remote control receiver (IC602)
2	LED-ENTER-AMS	O	Led For ENTER/AMS
3	WAKE-UP	O	WAKE-UP For Powersave
4	LED-TAPE-B	O	LED For TAPE B FW/RV
5	LED-CD-PLAY	O	LED For CD PLAY/PAUSE
6	LED-TAPE-A	O	LED For TAPE A FW/RV
7	L.SEL	O	Dynamic LED
8	JOG-B	I	Jog dial pulse input from the S601 (JOG)
9	VOL-A	I	Rotary encoder pulse input from the S602 (VOLUME)
10	VOL-B	I	Rotary encoder pulse input from the S602 (VOLUME)
11	KEY-0	I	Key input terminal (A/D input) (S631 to S643)
12	KEY-1	I	Key input terminal (A/D input) (S644 to S657)
13	KEY-2	I	Key input terminal (A/D input) (S658 to S663)
14 to 17	BPF1 to BPF4	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603)
18	ALL BAND	I/O	Vacs/non-stop
19	LED-DISK-1	O	Led for DISK1
20	LED-DISK-2	O	Led for DISK2
21	LED-DISK-3	O	Led for DISK3
22	LED-GRV-JOG	I	LED for GROOVE/JOG
23	VSS-IO	I/O	Ground terminal
24	VASS	—	Ground terminal
25	VAREF	I	Reference voltage (+5V) input terminal (forA/D conversion)
26	VDD-IO	I/O	Power supply terminal (+5V)
27 to 39	GRID 0 to GRID12	O	Grid drive signal output to the fluorescent indicator tube (FL601)
40	ANODE0	O	Anode drive signal output to the fluorescent indicator tube (FL601)
41	VDD-VFT	—	Power supply terminal (+5V)
42 to 64	ANODE1 to ANODE23	O	Anode drive signal output to the fluorescent indicator tube(FL601)
65	L-VCD-PBC	O	Led for VCD/PBC on
66	LED-NSTOP-PBC-OFF	O	LED for STOP/PBC-OFF
67	L-REC/PAUSE	O	Led for REC/PAUSE
68	VKK	—	Power supply terminal (-30V) (for fluorescent indicator tube drive)
69	VDD-CPU	—	Power supply terminal (+5V)
70	XIN	I	System clock input terminal (12.5MHz)
71	VSS-CPU	—	Ground terminal
72	XOUT	O	System clock output terminal (12.5MHz)
73	RESET	I	System reset signal input from the reset sygnal generator (IC501)
74	LED-STBY	O	Led for Standby
75	LED-TMR SELECT	O	Led for timer
76	TEST	I	Connected to ground
77	N.C.	—	Not connected
78	I2C DATA	I/O	Communication data bus with the system controller (IC501)
79	I2C CLK	I/O	Communication data reading clock sygnal input or transfer clock sygnal output withthe system controller (IC501)
80	JOG-A	I	Jog dial pulse input from the S601 (JOG)

SECTION 8
EXPLODED VIEWS

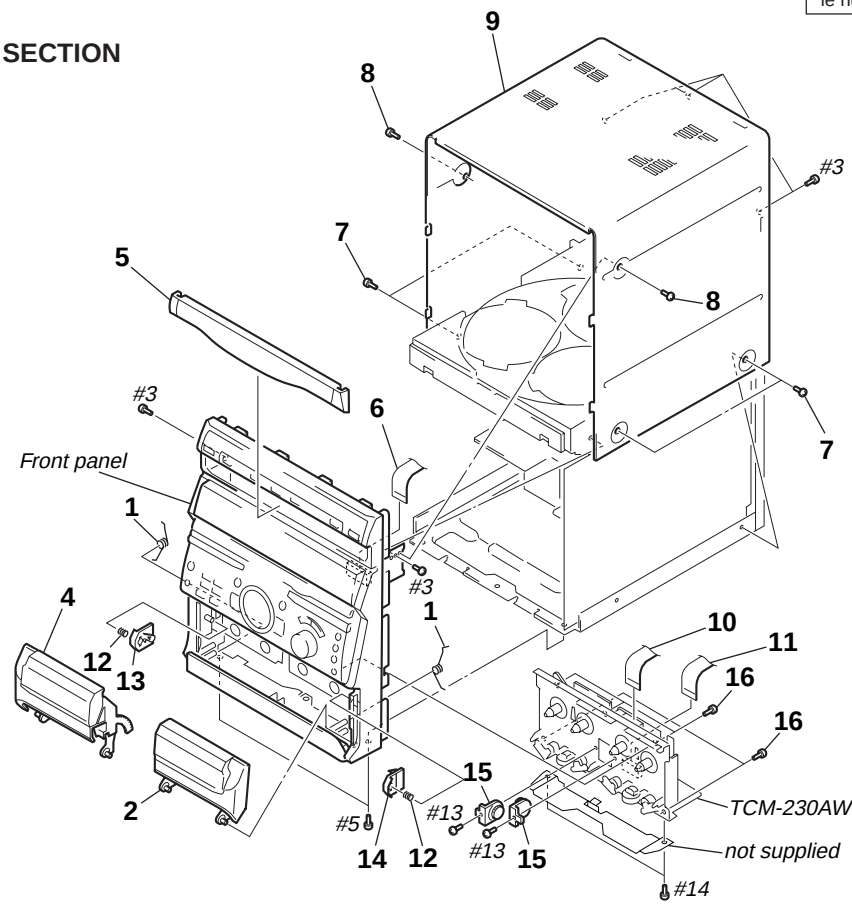
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

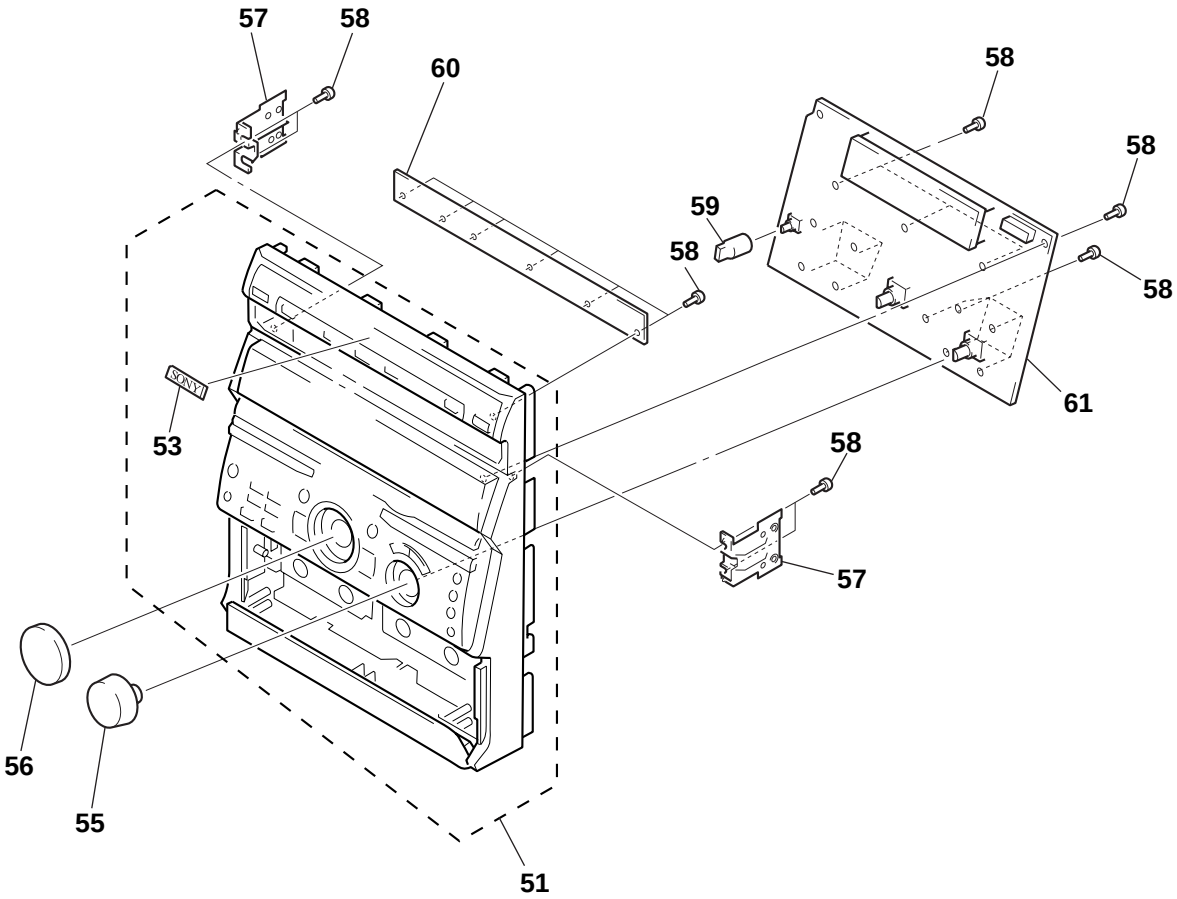
8-1. CASE SECTION



- Abbreviation
  - CND : Canadian model
  - AUS : Australian model
  - G : German model
  - AED : North European model
  - EA : Saudi Arabia model
  - E2 : Central and South America model
  - E3 : Middle and Near East model
  - MX : Mexican model
  - SP : Singapore model
  - TH : Thai model
  - TW : Taiwan model
  - AR : Argentina model
  - KR : Korea model

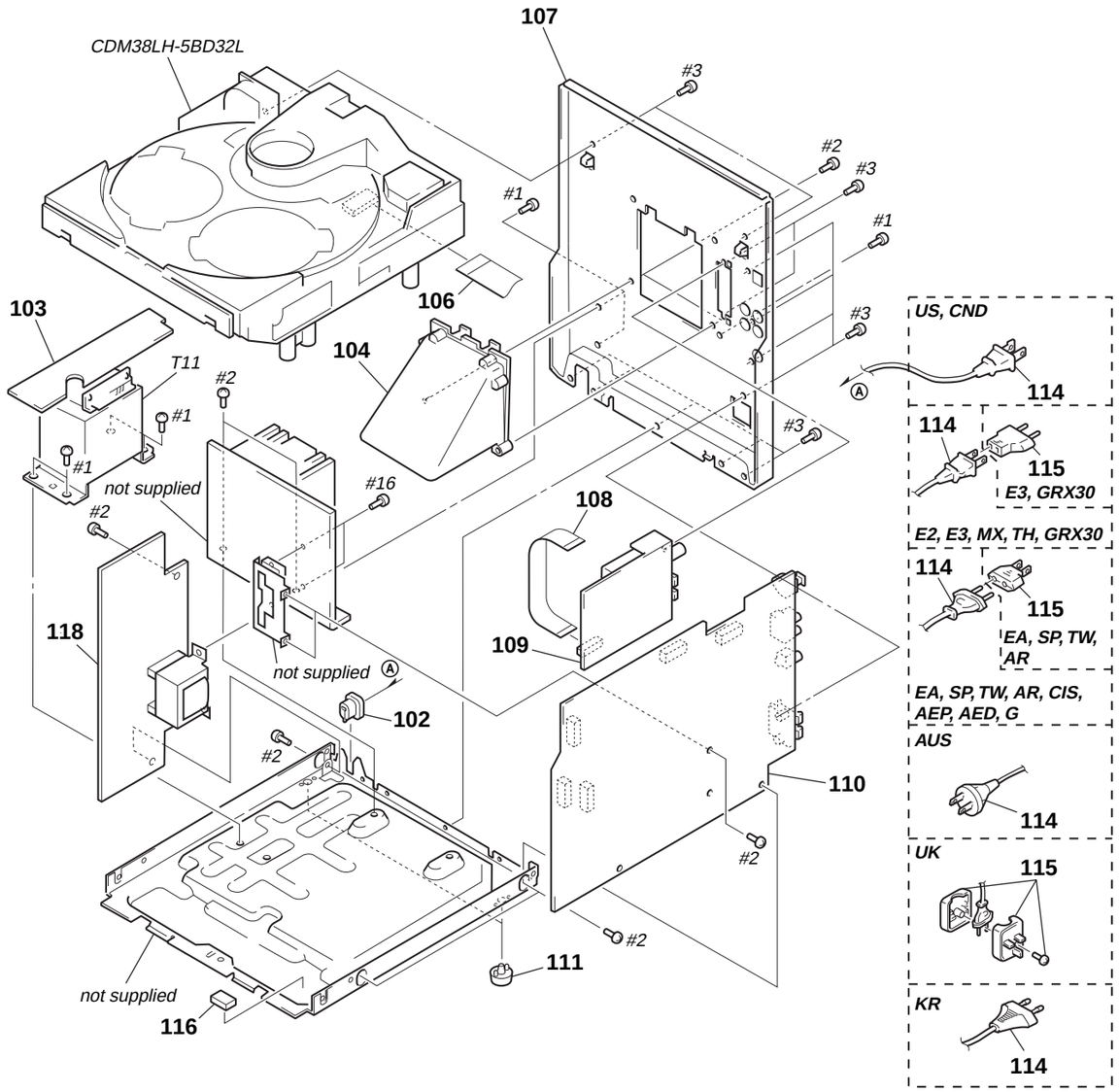
Ref. No.	Part No.	Description	Remarks
1	4-219-087-01	SPRING, TENSION	
2	X-4950-832-1	HOLDER (R) ASSY, CASSETTE	
		(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS/RXD5:US,CND,CIS)	
2	X-4950-834-1	HOLDER (R) ASSY, CASSETTE	
		(RXD5:AEP,AED,UK,G)	
2	X-4950-971-1	HOLDER (R) ASSY, CASSETTE	
		(GRX30:E3,EA/GRX30J/R550:CIS)	
2	X-4950-975-1	HOLDER (R) ASSY, CASSETTE	
		(R550:AEP,AED,UK,G)	
4	X-4950-828-1	HOLDER (L) ASSY, CASSETTE	
		(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS/RXD5:US,CND,CIS)	
4	X-4950-830-1	HOLDER (L) ASSY, CASSETTE	
		(RXD5:AEP,AED,UK,G)	
4	X-4950-970-1	HOLDER (L) ASSY, CASSETTE	
		(GRX30:E3,EA/GRX30J/R550:CIS)	
4	X-4950-974-1	HOLDER (L) ASSY, CASSETTE	
		(R550:AEP,AED,UK,G)	
5	X-4951-055-1	PANEL ASSY, LOADING (R550:CIS)	
5	X-4951-376-1	PANEL ASSY, LOADING (RXD5:AEP,AED,UK,G)	
5	X-4951-047-1	PANEL ASSY, LOADING	
		(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS)	
5	X-4951-378-1	PANEL ASSY, LOADING (R550:AEP,AED,UK,G)	
5	X-4951-049-1	PANEL ASSY, LOADING (GRX30:E3,EA/GRX30J)	
5	X-4951-052-1	PANEL ASSY, LOADING (RXD5:US,CND,CIS)	
6	1-773-120-11	WIRE (FLAT TYPE)(19 CORE)	
7	3-363-099-01	SCREW (CASE 3 TP2)	
		(GRX30:E3,EA/GRX30J/R550)	
7	3-363-099-11	SCREW (CASE 3 TP2)	
		(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS/RXD5)	
8	3-363-099-41	SCREW (CASE 3 TP2)	
		(GRX30:E3,EA/GRX30J/R550)	
8	3-363-099-71	SCREW (CASE 3 TP2)	
		(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS/RXD5)	
9	4-219-394-41	CASE (RXD5:AEP,AED,UK,G)	
9	4-219-394-61	CASE (R550:AEP,AED,UK,G)	
9	4-219-394-81	CASE (GRX30:TH)	
9	4-221-585-01	CASE	
		(GRX30:E2,MX,AR,SP,TW,KR,AUS/RXD5:US,CND,CIS)	
9	4-221-585-21	CASE (GRX30:E3,EA/GRX30J/R550:CIS)	
10	1-773-043-11	WIRE (FLAT TYPE) (17 CORE)	
11	1-773-024-11	WIRE (FLAT TYPE) (15 CORE)	
12	4-214-775-11	SPRING, PUSH CATCHER RETURN	
13	4-214-760-11	CATCHER (A), PUSH	
		(GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
13	4-214-760-31	CATCHER (A), PUSH	
		(R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
14	4-214-761-11	CATCHER (B), PUSH	
		(GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
14	4-214-761-31	CATCHER (B), PUSH	
		(R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
15	4-215-062-01	DAMPER	
16	4-951-620-01	SCREW (2.6 × 8), +BVTP	

8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks
51	X-4951-048-1	FRONT PANEL ASSY (GRX30:E2,MX,AR,SP,TH,TW,KR,AUS)	
51	X-4951-050-1	FRONT PANEL ASSY (GRX30:E3,EA/GRX30J)	
51	X-4951-051-1	FRONT PANEL ASSY (RXD5:US,CND)	
51	X-4951-053-1	FRONT PANEL ASSY (RXD5:CIS)	
51	X-4951-054-1	FRONT PANEL ASSY (R550:CIS)	
51	X-4951-377-1	FRONT PANEL ASSY (RXD5:AEP,AED,UK,G)	
51	X-4951-379-1	FRONT PANEL ASSY (R550:AEP,AED,UK,G)	
53	4-962-708-42	EMBLEM (4-A), SONY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
53	4-962-708-71	EMBLEM (4-A), SONY (GX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
55	4-214-384-11	KNOB (VOL) (GRX30:E2,MX,AR,SP,TW,KR,AUS/RXD5)	
55	4-214-384-21	KNOB (VOL) (GRX30:TH)	
55	4-214-384-51	KNOB (VOL)(GRX30:E3,EA/GRX30J/R550)	
56	4-214-383-11	KNOB (JOG) (GRX30:E2,MX,AR,SP,TW,KR,AUS/RXD5)	
56	4-214-383-21	KNOB (JOG) (GRX30:TH)	
56	4-214-383-51	KNOB (JOG)(GRX30:E3,EA/GRX30J/R550)	
* 57	4-996-716-01	HOLDER (CDM)	
58	4-951-620-01	SCREW (2.6 × 8), +BVTP	
59	4-214-382-21	KNOB (MIC) (GRX30:TH)	
59	4-214-385-11	KNOB (MIC) (GRX30:E2,MX,AR,SP,TW,KR,AUS/RXD5)	
59	4-214-385-51	KNOB (MIC)(GRX30:E3,EA/GRX30J/R550)	
60	1-672-968-11	CD SW BOARD	
61	A-4419-034-A	PANEL BOARD, COMPLETE (EXCEPT GRX30J, AED,AEP,G,UK,TH)	
61	A-4419-624-A	PANEL BOARD, COMPLETE (AEP,AED,UK,G)	
61	A-4419-962-A	PANEL BOARD, COMPLETE (TH)	
61	A-4424-023-A	PANEL BOARD, COMPLETE (GRX30J)	

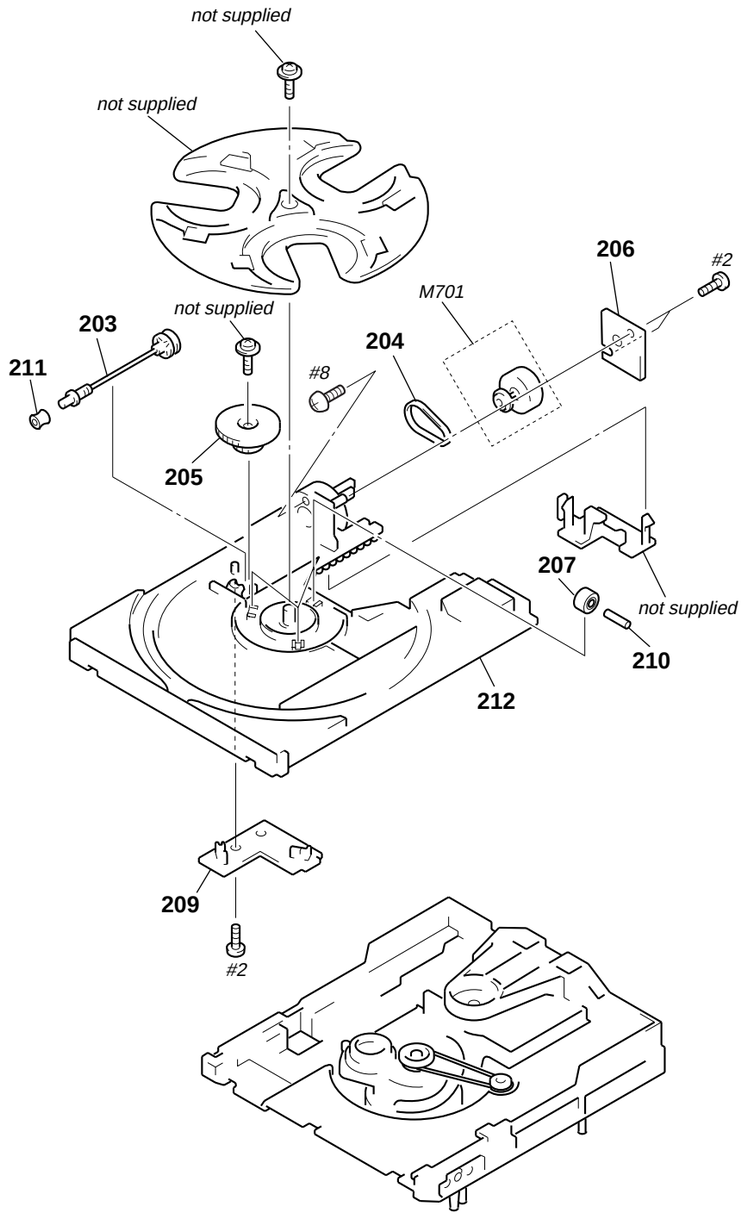
8-3. CHASSIS SECTION



Ref. No.	Part No.	Description	Remarks
* 102	3-703-244-00	BUSHING (2104), CORD (GRX30:EA,AR,SP,TH,TW,KR,AUS/R550/RXD5)	
102	3-703-571-11	BUSHING (S) (4516), CORD (GRX30:E2,E3,MX/GRX30J)	
103	1-672-969-11	AC SEC BOARD	
104	4-216-856-01	DUCT (GRX30/R550:CIS/RXD5:US,CND,CIS)	
104	4-216-856-11	DUCT (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
106	1-773-111-11	WIRE (FLAT TYPE) (19 CORE)	
107	4-214-432-01	PANEL, BACK (GRX30:E2,E3,EA,AR,SP,TW/GRX30J)	
107	4-214-432-11	PANEL, BACK (R550:CIS/RXD5:CIS)	
107	4-214-432-21	PANEL, BACK (RXD5:US,CND)	
107	4-214-432-31	PANEL, BACK (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
107	4-214-432-61	PANEL, BACK (GRX30:MX,TH,KR,AUS)	
108	1-769-976-11	WIRE (FLAT TYPE) (13 CORE) (E2,MX,AR,TH,KR,AUS,US,CND)	
108	1-773-008-11	WIRE (FLAT TYPE) (15 CORE) (E3,EA,SP,TW,AEP,AED,UK,G,CIS)	
108	1-773-011-11	WIRE (FLAT TYPE) (15 CORE) (GRX30J)	
109	1-233-544-11	TUNER (FM/AM) (US,CND)	
109	1-233-545-14	TUNER (FM/AM) (MX,AR,TA,KR,AUS)	
109	1-233-546-11	TUNER (FM/MW/SW) (GRX30:E3,EA,SP,TW/GRX30J)	
109	1-693-443-11	TUNER (FM/AM) (AEP,AED,UK,G,CIS)	
109	1-693-453-11	TUNER (FM/AM) (E2)	
110	A-4405-774-A	MAIN BOARD, COMPLETE (E2,MX,AR)	
110	A-4405-775-A	MAIN BOARD, COMPLETE (E3,SP,TW)	
110	A-4405-777-A	MAIN BOARD, COMPLETE (KR,AUS)	
110	A-4405-778-A	MAIN BOARD, COMPLETE (GRX30:EA)	
110	A-4405-780-A	MAIN BOARD, COMPLETE (US)	
110	A-4405-782-A	MAIN BOARD, COMPLETE (CND)	
110	A-4405-784-A	MAIN BOARD, COMPLETE (CIS)	
110	A-4405-963-A	MAIN BOARD, COMPLETE (AEP,AED,UK,G)	
110	A-4424-021-A	MAIN BOARD, COMPLETE (E)	
110	A-4424-022-A	MAIN BOARD, COMPLETE (GRX30J:EA)	
110	A-4424-025-A	MAIN BOARD, COMPLETE (JE)	
110	A-4424-054-A	MAIN BOARD, COMPLETE (TH)	
111	4-965-822-01	FOOT	
⚠ 114	1-575-651-11	CORD, POWER (GRX30:EA,AR,SP,TW/R550:CIS/RXD5:CIS)	
⚠ 114	1-575-653-11	CORD, POWER (GRX30:E2,E3,MX,TH/GRX30J)	
⚠ 114	1-696-847-11	CORD, POWER (GRX30:AUS)	
⚠ 114	1-769-079-21	CORD, POWER (GRX30:KR)	
⚠ 114	1-775-787-71	CORD, POWER (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
⚠ 114	1-783-820-11	CORD, POWER (RXD5:US, CND)	
115	1-569-007-11	ADAPTOR, CONVERSION 2P (GRX30:E3/GRX30J)	
115	1-569-008-21	ADAPTOR, CONVERSION 2P (GRX30:EA,AR,SP,TW)	
115	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (R550:UK/RXD5:UK)	
116	4-985-642-01	CUSHION	
118	A-4419-037-A	ST-BY BOARD, COMPLETE (GRX30:E2,E3,EA,AR,SP,TW)	
118	A-4419-045-A	ST-BY BOARD, COMPLETE (GRX30:KR,AUS)	
118	A-4419-048-A	ST-BY BOARD, COMPLETE (RXD5:US)	
118	A-4419-052-A	ST-BY BOARD, COMPLETE (RXD5:CND)	
118	A-4419-055-A	ST-BY BOARD, COMPLETE (R550:CIS/RXD5:CIS)	
118	A-4419-304-A	ST-BY BOARD, COMPLETE (GRX30:MX)	
118	A-4419-627-A	ST-BY BOARD, COMPLETE (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
118	A-4419-867-A	ST-BY BOARD, COMPLETE (GRX30J)	
118	A-4419-965-A	ST-BY BOARD, COMPLETE (GRX30:TH)	
⚠ T11	1-433-755-11	TRANSFORMER, POWER (CIS)	
⚠ T11	1-433-755-21	TRANSFORMER, POWER (AEP,AED,UK,G)	
⚠ T11	1-433-756-11	TRANSFORMER, POWER (CND)	
⚠ T11	1-433-757-11	TRANSFORMER, POWER (US)	
⚠ T11	1-433-902-11	TRANSFORMER, POWER (GRX30/GRX30J)	

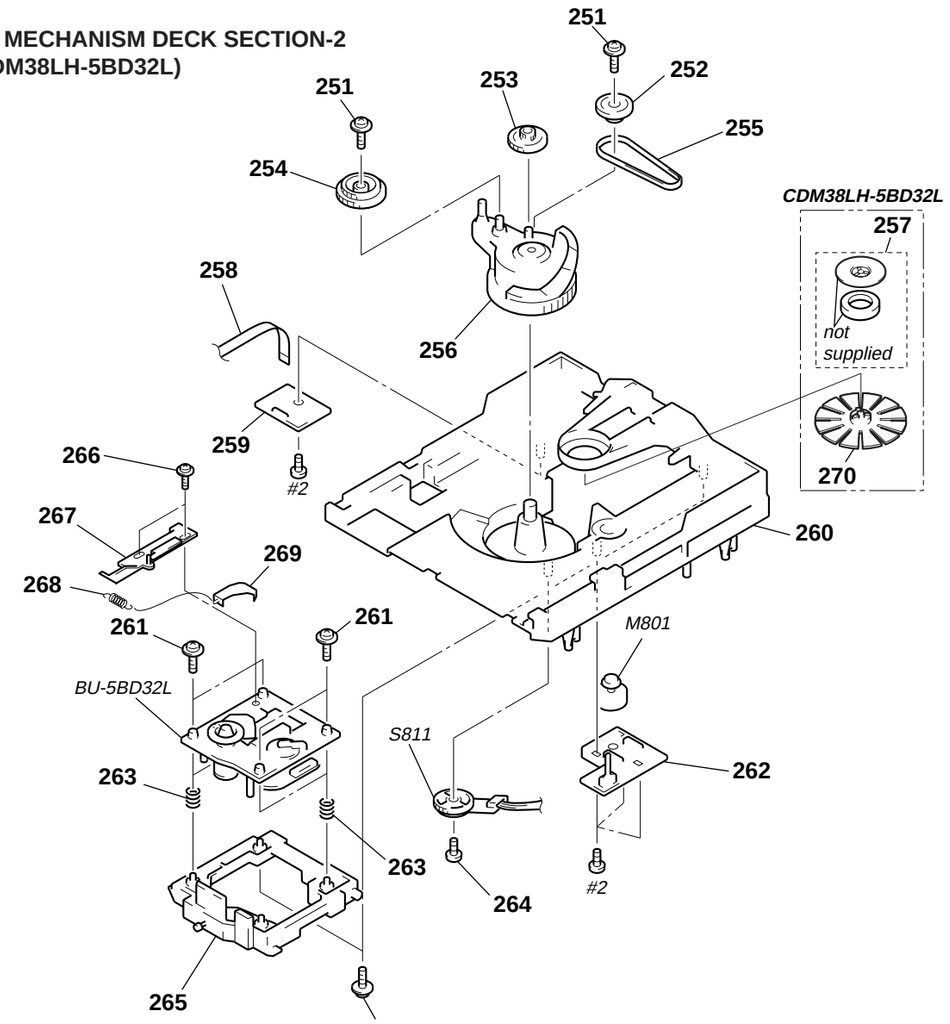
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-4. CD MLH-5BDECHANISM DECK SECTION-1 (CDM38LH-5BD32L)



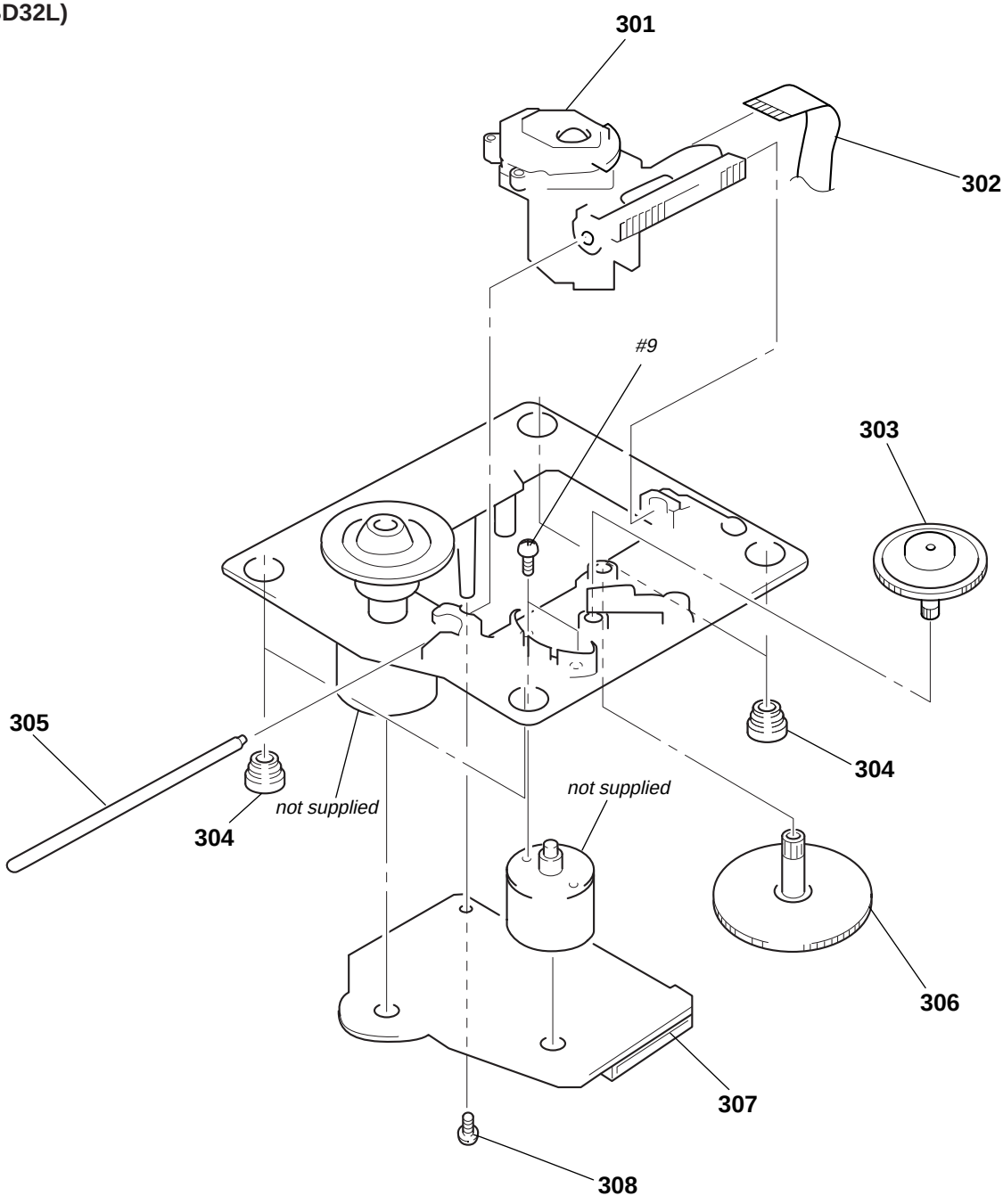
Ref. No.	Part No.	Description	Remarks
203	X-4946-665-1	SHAFT ASSY, WORM (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
203	X-4948-215-1	SHAFT ASSY, WORM (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
204	4-977-943-01	BELT (TURN) (1.2)	
205	4-977-956-01	WHEEL, WORM (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
205	4-977-956-51	WHEEL, WORM (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
206	1-658-577-11	MOTOR (TURN) BOARD	
207	4-988-162-01	ROLLER	
* 209	1-658-576-11	SENSOR BOARD	
210	4-934-376-01	SHAFT (ROLLER)	
211	4-981-187-01	COLLAR (WORM) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
211	4-981-187-51	COLLAR (WORM) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
212	4-977-944-01	TRAY (SLIDE)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	

8-5. CD MECHANISM DECK SECTION-2 (CDM38LH-5BD32L)



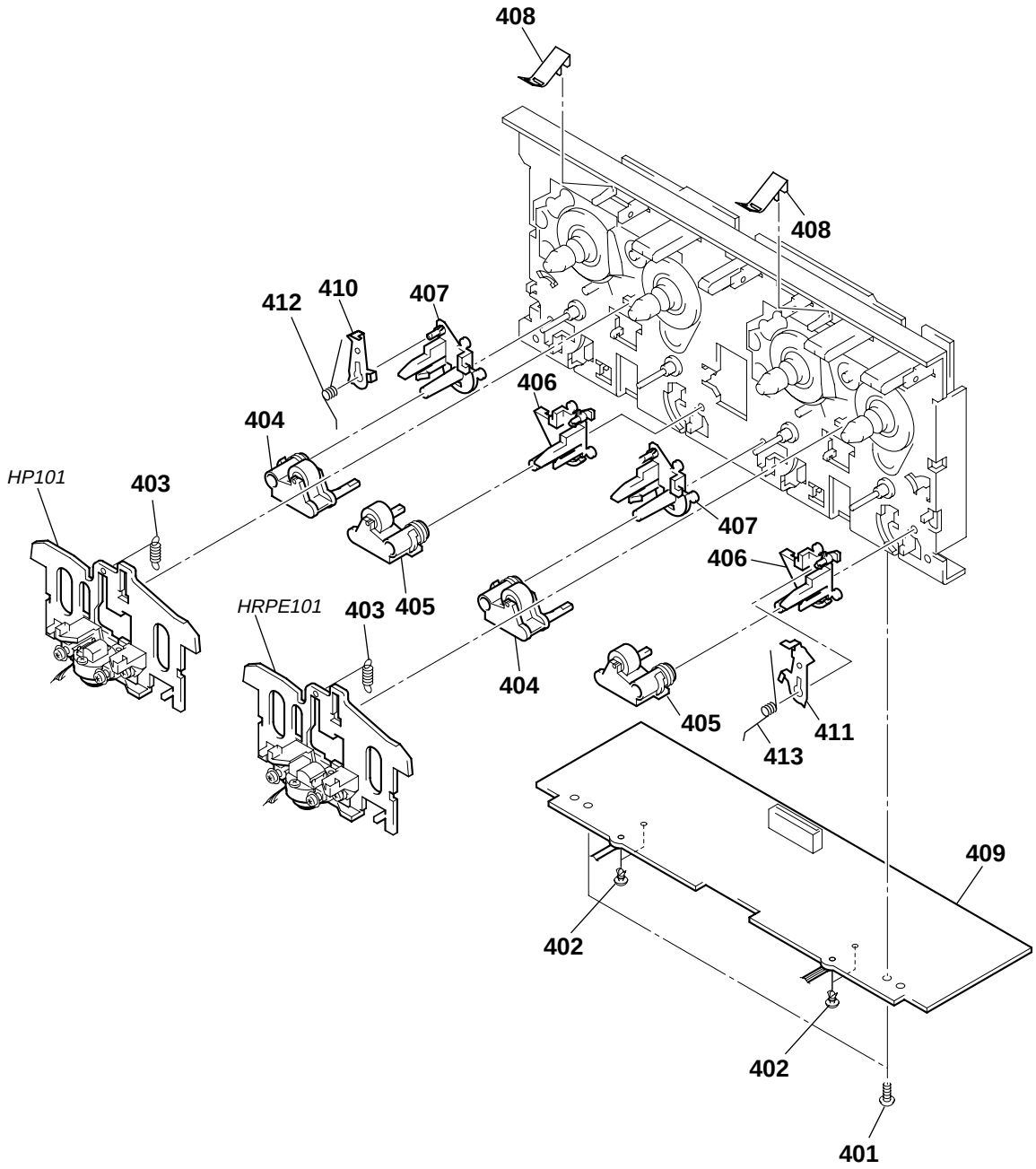
Ref. No.	Part No.	Description	Remarks
251	4-981-789-11	BRACKET (2), YOKE	
252	4-977-954-01	PULLEY (SL) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
252	4-977-954-51	PULLEY (SL) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
253	4-977-953-01	GEAR (SL-A) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
253	4-977-953-51	GEAR (SL-A) (R550:AEP,AED,UK,G/RXD5:AEP, AED,UK,G)	
254	4-977-955-01	GEAR (SL-B) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
254	4-977-955-51	GEAR (SL-B) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
255	4-977-942-01	BELT (SL) (1.4)	
256	X-4946-667-1	CAM ASSY, BU (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
256	X-4948-218-1	CAM ASSY, BU (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
* 257	1-452-925-21	MAGNET ASSY	
* 259	1-658-575-11	CONNECTOR BOARD	
* 260	X-4946-668-1	CHASSIS (CDM) ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
* 260	X-4948-216-3	CHASSIS (CDM) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
263	4-982-447-01	SPRING (BU), COMPRESSION	
264	4-951-620-41	SCREW (2.6), +BVTP	
265	X-4948-217-1	HOLDER (BU) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
265	X-4949-570-1	HOLDER (BU) ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
266	4-989-494-01	SCREW (SLIDER), STEP	
267	4-989-492-11	SLIDER (38) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
267	4-989-492-52	SLIDER (38) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
268	4-989-819-02	SPRING, TENSION	
269	4-989-491-11	COVER (2), LENS	
270	4-993-142-21	PULLEY (L), PRESS (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
270	X-4950-384-2	PULLEY (L) ASSY, PRESS (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
M801	A-4672-004-A	MOTOR ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
M801	A-4672-312-A	MOTOR (CDM) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
S811	1-473-335-11	ENCODER, ROTARY (BU,TRAY ADDRESS DET)	

8-6. BASE UNIT SECTION (BU-5BD32L)



Ref. No.	Part No.	Description	Remarks
301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-RP	
302	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)	
303	4-917-567-01	GEAR (M)	
304	4-951-940-01	INSULATOR (BU)	
305	4-917-565-01	SHAFT, SLED	
306	4-917-564-01	GEAR (P), FLATNESS	
* 307	A-4724-486-A	BD BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6 × 8), +BVTP	

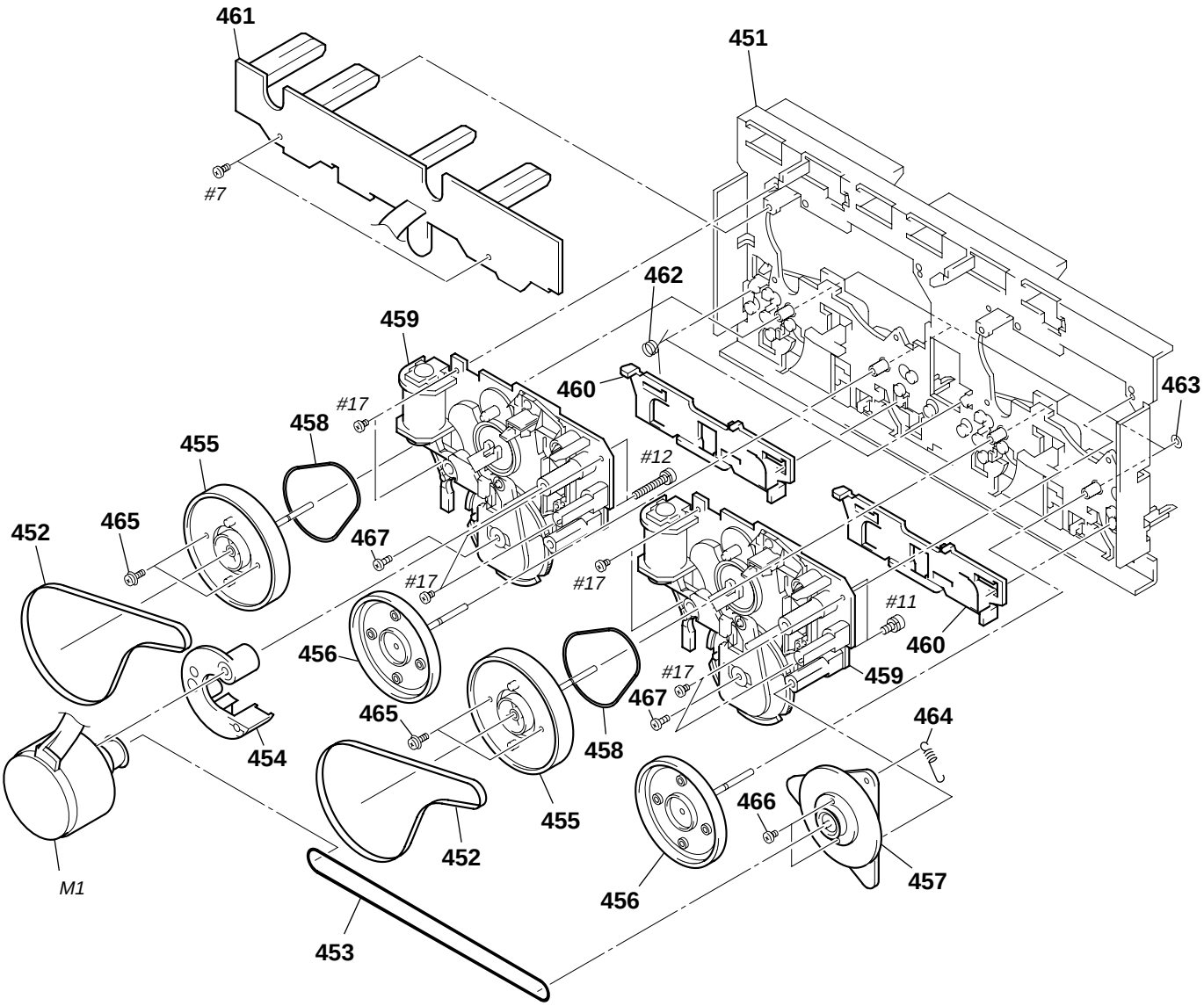
8-7. TAPE MECHANISM DECK SECTION-1
(TCM-230AWR2)



Ref. No.	Part No.	Description	Remarks
401	3-376-464-11	SCREW(+PTT 2.6 × 6),GROUND POINT	
402	3-911-116-42	RIVET, PUSH	
403	3-016-574-11	SPRING (HEAD), TENSION	
404	X-3374-156-4	PINCH LEVER (REV) ASSY	
405	X-3374-155-4	PINCH LEVER (FWD) ASSY	
406	3-016-564-01	BASE (PINCH LEVER FWD)	
407	3-016-565-01	BASE (PINCH LEVER REV)	

Ref. No.	Part No.	Description	Remarks
408	3-026-892-01	SPRING (CASSETTE), LEAF	
* 409	A-2007-731-A	AUDIO BOARD, COMPLETE	
410	3-016-572-01	LEVER (EJECT PREVENTION L)	
411	3-016-573-01	LEVER (EJECT PREVENTION R)	
412	3-032-809-02	SPRING (L), TORSION	
413	3-032-810-02	SPRING (R), TORSION	
HP101	A-2056-681-C	DECK (A) ASSY, HEAD	
HRPE101	A-2056-682-C	DECK (B) ASSY, HEAD	

8-8. TAPE MECHANISM DECK SECTION-2
(TCM-230AWR2)



Ref. No.	Part No.	Description	Remarks
* 451	X-3374-214-3	CHASSIS ASSY, MAIN	
452	3-016-570-01	BELT (CAPSTAN)	
453	3-016-569-01	BELT (TENSION)	
454	3-017-360-01	BRACKET (MOTOR)	
455	X-3376-497-1	FLYWHEEL (FWD) ASSY	
456	X-3374-235-1	FLYWHEEL (REV) ASSY	
457	X-3374-238-1	PULLEY ASSY, TENSION	
458	3-024-405-01	BELT (FR2)	
459	A-2004-629-B	MECHANICAL BLOCK ASSY	
460	3-016-566-01	SLIDER, REVERSE	
* 461	A-2007-732-A	LEAF SW BOARD, COMPLETE	
462	3-016-575-11	SPRING, TORSION	
463	3-019-208-01	WASHER, STOPPER	
464	3-027-453-01	SPRING (GROUND), TENSION	
465	7-685-103-19	+ PTPWH (2 × 5)	
466	7-627-553-17	SCREW,PRECISION +P 2 × 2	
467	7-685-781-09	SCREW +PTT 2 × 4 (S)	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	

AC SEC **AUDIO**

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation

  CND : Canadian model
  AUS : Australian model
  G : German model
  AED : North European model
  EA : Saudi Arabia model
  E2 : Central and South America model
  E3 : Middle and Near East model
  MX : Mexican model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model
  AR : Argentina model
  KR : Korea model

- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH

- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
5	1-672-969-11	AC SEC BOARD			
		**********			
	1-533-217-31	HOLDER, FUSE (GRX30/GRX30J)			
		< CONNECTOR >			
CN21	1-564-524-11	PLUG, CONNECTOR 9P (R550/RXD5)			
* CN21	1-564-526-11	PLUG, CONNECTOR 11P (GRX30/GRX30J)			
		< FUSE >			
⚠F953	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)			
⚠F954	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)			
⚠F955	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)			
⚠F956	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)			
		< RESISTOR >			
⚠R951	1-219-121-11	FUSIBLE	0.22	5% 1/4W F	
⚠R952	1-219-121-11	FUSIBLE	0.22	5% 1/4W F	
⚠R953	1-219-119-81	FUSIBLE	0.1	5% 1/4W F (GRX30/GRX30J)	
⚠R953	1-219-120-11	FUSIBLE	0.15	5% 1/4W F (R550/RXD5)	
**********					
*	A-2007-731-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10% 50V	
C302	1-126-968-11	ELECT	100uF	20% 6.3V	
C303	1-162-282-31	CERAMIC	100PF	10% 50V	
C304	1-130-483-00	MYLAR	0.01uF	5% 50V	
C305	1-107-715-11	ELECT	22uF	20% 16V	
C311	1-162-289-31	CERAMIC	390PF	10% 50V	
C313	1-162-282-31	CERAMIC	100PF	10% 50V	
C314	1-130-487-00	MYLAR	0.022uF	5% 50V	
C315	1-126-233-11	ELECT	22uF	20% 50V	
C331	1-137-427-11	FILM	120PF	5% 50V	

Ref. No.	Part No.	Description			Remarks
C332	1-162-288-31	CERAMIC	330PF	10% 50V	
C333	1-162-209-31	CERAMIC	27PF	5% 50V	
C401	1-162-289-31	CERAMIC	390PF	10% 50V	
C402	1-126-968-11	ELECT	100uF	20% 6.3V	
C403	1-162-282-31	CERAMIC	100PF	10% 50V	
C404	1-130-483-00	MYLAR	0.01uF	5% 50V	
C405	1-107-715-11	ELECT	22uF	20% 16V	
C411	1-162-289-31	CERAMIC	390PF	10% 50V	
C413	1-162-282-31	CERAMIC	100PF	10% 50V	
C414	1-130-487-00	MYLAR	0.022uF	5% 50V	
C415	1-126-233-11	ELECT	22uF	20% 50V	
C431	1-137-427-11	FILM	120PF	5% 50V	
C432	1-162-288-31	CERAMIC	330PF	10% 50V	
C433	1-162-209-31	CERAMIC	27PF	5% 50V	
C601	1-104-396-11	ELECT	10uF	20% 16V	
C602	1-104-396-11	ELECT	10uF	20% 16V	
C611	1-104-396-11	ELECT	10uF	20% 16V	
C612	1-104-396-11	ELECT	10uF	20% 16V	
C621	1-137-150-11	FILM	0.01uF	5% 100V	
C622	1-126-961-11	ELECT	2.2uF	20% 50V	
C623	1-136-155-00	FILM	0.015uF	5% 50V	
C624	1-130-481-00	MYLAR	0.0068uF	5% 50V	
C625	1-130-481-00	MYLAR	0.0068uF	5% 50V	
C627	1-124-903-11	ELECT	1uF	20% 50V	
C628	1-136-153-00	FILM	0.01uF	5% 50V	
C642	1-104-664-11	ELECT	47uF	20% 16V	
		< CONNECTOR >			
CN601	1-568-834-11	SOCKET, CONNECTOR 15P			
		< IC >			
IC601	8-759-111-44	IC UPC4570C-1			
IC602	8-759-143-54	IC UPC1330HA			
IC611	8-759-111-44	IC UPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR 27mH			
L431	1-410-780-11	INDUCTOR 27mH			
L601	1-414-193-41	INDUCTOR 220uH			
L602	1-414-193-41	INDUCTOR 220uH			

Ref. No.	Part No.	Description				Remarks
		< TRANSISTOR >				
Q621	8-729-142-46	TRANSISTOR 2SC2001-LK				
Q622	8-729-142-46	TRANSISTOR 2SC2001-LK				
Q623	8-729-801-93	TRANSISTOR 2SD1387				
		< RESISTOR >				
R301	1-247-881-00	CARBON	120K	5%	1/4W	
R302	1-249-409-11	CARBON	220	5%	1/4W	F
R303	1-249-433-11	CARBON	22K	5%	1/4W	
R304	1-247-889-00	CARBON	270K	5%	1/4W	
R305	1-247-858-11	CARBON	13K	5%	1/4W	
R311	1-247-881-00	CARBON	120K	5%	1/4W	
R312	1-247-807-31	CARBON	100	5%	1/4W	
R314	1-247-882-11	CARBON	130K	5%	1/4W	
R315	1-247-850-11	CARBON	6.2K	5%	1/4W	
R331	1-249-430-11	CARBON	12K	5%	1/4W	
R401	1-247-881-00	CARBON	120K	5%	1/4W	
R402	1-249-409-11	CARBON	220	5%	1/4W	F
R403	1-249-433-11	CARBON	22K	5%	1/4W	
R404	1-247-889-00	CARBON	270K	5%	1/4W	
R405	1-247-858-11	CARBON	13K	5%	1/4W	
R411	1-247-881-00	CARBON	120K	5%	1/4W	
R412	1-247-807-31	CARBON	100	5%	1/4W	
R414	1-247-882-11	CARBON	130K	5%	1/4W	
R415	1-247-850-11	CARBON	6.2K	5%	1/4W	
R431	1-249-430-11	CARBON	12K	5%	1/4W	
R601	1-249-409-11	CARBON	220	5%	1/4W	F
R602	1-249-409-11	CARBON	220	5%	1/4W	F
R608	1-249-409-11	CARBON	220	5%	1/4W	F
R609	1-249-433-11	CARBON	22K	5%	1/4W	
R611	1-249-409-11	CARBON	220	5%	1/4W	F
R612	1-249-409-11	CARBON	220	5%	1/4W	F
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F
R623	1-249-432-11	CARBON	18K	5%	1/4W	
R624	1-249-432-11	CARBON	18K	5%	1/4W	
R625	1-249-429-11	CARBON	10K	5%	1/4W	
		< VARIABLE RESISTOR >				
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV341	1-241-768-11	RES, ADJ, CARBON 220K				
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV441	1-241-768-11	RES, ADJ, CARBON 220K				
		< TRANSFORMER >				
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION				
**********						
*	A-4724-486-A	BD BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C102	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C104	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C108	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	

Ref. No.	Part No.	Description				Remarks
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V	
C110	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V	
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C114	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V	
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V	
C117	1-126-209-11	ELECT CHIP	100uF	20%	4V	
C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C122	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C123	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C124	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V	
C125	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C127	1-128-065-11	ELECT CHIP	68uF	20%	10V	
C128	1-163-038-91	CERAMIC	CHIP	0.1uF	25V	
C129	1-163-031-11	CERAMIC	CHIP	0.01uF	50V	
C130	1-164-346-11	CERAMIC CHIP	1uF		16V	
C131	1-124-779-00	ELECT CHIP	10uF	20%	16V	
C133	1-164-346-11	CERAMIC CHIP	1uF		16V	
C140	1-164-346-11	CERAMIC CHIP	1uF		16V	
C141	1-164-346-11	CERAMIC CHIP	1uF		16V	
C143	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C151	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C154	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V	
C156	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C157	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	
C161	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C162	1-126-205-11	ELECT CHIP	47uF	20%	6.3V	
C163	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C165	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C167	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C168	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C171	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C172	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C181	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C182	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
		< CONNECTOR >				
CN101	1-778-874-11	CONNECTOR,FFC (LIF(NON-ZIF))19P				
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P				
		< FERRITE BEAD >				
FB101	1-500-445-21	FERRITE	0UH			
FB103	1-500-445-21	FERRITE	0UH			
		< IC >				
IC101	8-752-386-85	IC CXD2587Q				
IC102	8-759-549-28	IC BA5974FP-E2				
IC103	8-752-085-51	IC CXA2568M-T6				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

BD CD SW CONNECTOR LEAF SW

Ref. No.	Part No.	Description			Remarks
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	RES,CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W
R106	1-216-049-91	RES,CHIP	1K	5%	1/10W
R107	1-216-073-00	METAL CHIP	10K	5%	1/10W
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W
R110	1-216-025-91	RES,CHIP	100	5%	1/10W
R111	1-216-121-91	RES,CHIP	1M	5%	1/10W
R113	1-216-121-91	RES,CHIP	1M	5%	1/10W
R114	1-216-073-00	METAL CHIP	10K	5%	1/10W
R116	1-216-001-00	METAL CHIP	10	5%	1/10W
R117	1-216-049-91	RES,CHIP	1K	5%	1/10W
R119	1-216-041-00	METAL CHIP	470	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-91	RES,CHIP	100K	5%	1/10W
R131	1-216-033-00	METAL CHIP	220	5%	1/10W
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R147	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-001-00	METAL CHIP	10	5%	1/10W
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
R171	1-216-078-00	RES,CHIP	16K	5%	1/10W
R172	1-216-073-00	METAL CHIP	10K	5%	1/10W
R173	1-216-077-00	METAL CHIP	15K	5%	1/10W
R181	1-216-078-00	RES,CHIP	16K	5%	1/10W
R182	1-216-073-00	METAL CHIP	10K	5%	1/10W
R183	1-216-077-00	METAL CHIP	15K	5%	1/10W
		< NETWORK >			
RN101	1-233-576-11	RES, CHIP NETWORK 100			
RN102	1-233-576-11	RES, CHIP NETWORK 100			
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
		< VIBRATOR >			
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
	1-672-968-11	CD SW BOARD			
		**********			
		< DIODE >			
D751	8-719-056-13	DIODE SML79423C-TP15			
D752	8-719-056-13	DIODE SML79423C-TP15			
D753	8-719-056-13	DIODE SML79423C-TP15			
D754	8-719-063-93	DIODE SLR325VC-N-T32			

Ref. No.	Part No.	Description			Remarks
		< TRANSISTOR >			
Q751	8-729-904-39	TRANSISTOR DTC114TS			
Q752	8-729-904-39	TRANSISTOR DTC114TS			
Q753	8-729-904-39	TRANSISTOR DTC114TS			
		< RESISTOR >			
R751	1-249-418-11	CARBON	1.2K	5%	1/4W F
R752	1-249-420-11	CARBON	1.8K	5%	1/4W F
R753	1-249-422-11	CARBON	2.7K	5%	1/4W F
R754	1-247-843-11	CARBON	3.3K	5%	1/4W
R755	1-249-425-11	CARBON	4.7K	5%	1/4W F
R756	1-249-427-11	CARBON	6.8K	5%	1/4W F
R757	1-249-429-11	CARBON	10K	5%	1/4W
R758	1-247-804-11	CARBON	75	5%	1/4W
R759	1-247-804-11	CARBON	75	5%	1/4W
R760	1-247-804-11	CARBON	75	5%	1/4W
R761	1-247-804-11	CARBON	75	5%	1/4W
R762	1-247-804-11	CARBON	75	5%	1/4W
R763	1-247-804-11	CARBON	75	5%	1/4W
R764	1-249-407-11	CARBON	150	5%	1/4W F
		< SWITCH >			
S751	1-762-196-21	SWITCH, TACT (**I**/⏻)			
S752	1-762-196-21	SWITCH, TACT ((STANBY),DEMO)			
S753	1-762-196-21	SWITCH, TACT (DISC 1)			
S754	1-762-196-21	SWITCH, TACT (DISC 2)			
S755	1-762-196-21	SWITCH, TACT (DISC 3)			
S756	1-762-196-21	SWITCH, TACT (DISC SKIP,EX-CHANGE)			
S757	1-762-196-21	SWITCH, TACT (⏏)			
**********					
*	1-658-575-11	CONNECTOR BOARD			
		**********			
		< CONNECTOR >			
* CN701	1-568-946-11	PIN, CONNECTOR 8P			
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P			
		< TRANSISTOR >			
Q701	8-729-900-80	TRANSISTOR DTC114ES			
		< RESISTOR >			
R703	1-249-435-11	CARBON	33K	5%	1/4W
R704	1-249-429-11	CARBON	10K	5%	1/4W
R705	1-249-417-11	CARBON	1K	5%	1/4W F
**********					
*	A-2007-732-A	LEAF SW BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1001	1-107-716-11	ELECT	33uF	20%	10V
		< CONNECTOR >			
CN1001	1-568-860-11	SOCKET, CONNECTOR 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS119			
D1002	8-719-911-19	DIODE 1SS119			

Ref. No.	Part No.	Description				Remarks
		< HOLDER >				
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P				
		< IC >				
IC1001	8-749-014-38	IC PHOTO INTERRUPTER SG-264				
IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264				
		< TRANSISTOR >				
Q1001	8-729-029-56	TRANSISTOR DTA144ESA				
		< RESISTOR >				
R907	1-247-879-11	CARBON	100K	5%	1/4W	
R1001	1-249-409-11	CARBON	220	5%	1/4W	F
R1002	1-249-409-11	CARBON	220	5%	1/4W	F
R1003	1-249-414-11	CARBON	560	5%	1/4W	F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W	
R1005	1-247-818-11	CARBON	300	5%	1/4W	
R1006	1-247-864-11	CARBON	24K	5%	1/4W	
R1007	1-247-856-00	CARBON	11K	5%	1/4W	
R1008	1-249-417-11	CARBON	1K	5%	1/4W	F
		< VARIABLE RESISTOR >				
RV1001	1-241-785-11	RES, ADJ, CARBON 10K				
RV1002	1-241-785-11	RES, ADJ, CARBON 10K				
		< SWITCH >				
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (A PLAY)				
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (B PLAY)				
S1003	1-771-537-11	SWITCH, LEAF (A HALF)				
S1004	1-771-205-11	SWITCH, LEAF (A 120/70)				
S1005	1-771-205-11	SWITCH, LEAF (REC A)				
S1006	1-771-537-11	SWITCH, LEAF (B HALF)				
S1008	1-771-205-11	SWITCH, LEAF (B 120/70)				
S1009	1-771-205-11	SWITCH, LEAF (REC B)				
**********						
	A-4405-774-A	MAIN BOARD, COMPLETE (E2,MX,AR)				
		**********				
	A-4405-775-A	MAIN BOARD, COMPLETE (E3,SP,TW)				
		**********				
	A-4405-778-A	MAIN BOARD, COMPLETE (GRX30:EA)				
		**********				
	A-4424-054-A	MAIN BOARD, COMPLETE (TH)				
		**********				
	A-4405-777-A	MAIN BOARD, COMPLETE (KR,AUS)				
		**********				
	A-4424-021-A	MAIN BOARD, COMPLETE (E)				
		**********				
	A-4424-022-A	MAIN BOARD, COMPLETE (GRX30J:EA)				
		**********				
	A-4424-025-A	MAIN BOARD, COMPLETE (JE)				
		**********				
	A-4405-963-A	MAIN BOARD, COMPLETE (AEP,AED,UK,G)				
		**********				
	A-4405-784-A	MAIN BOARD, COMPLETE (CIS)				
		**********				
	A-4405-780-A	MAIN BOARD, COMPLETE (US)				
		**********				
	A-4405-782-A	MAIN BOARD, COMPLETE (CND)				
		**********				
	7-685-646-79	SCREW +BVTP 3 × 8 TYPE2 N-S				

Ref. No.	Part No.	Description			Remarks
		< CAPACITOR >			
C101	1-162-286-31	CERAMIC	220PF	10%	50V
C103	1-162-286-31	CERAMIC	220PF	10%	50V
C104	1-164-159-11	CERAMIC	0.1uF		50V
C111	1-137-195-11	FILM	0.56uF	5%	50V
C112	1-136-158-00	FILM	0.027uF	5%	50V
C115	1-136-159-00	FILM	0.033uF	5%	50V
C116	1-130-473-00	MYLAR	0.0015uF	5%	50V
C119	1-130-479-00	MYLAR	0.0047uF	5%	50V
C120	1-130-477-00	MYLAR	0.0033uF	5%	50V
C121	1-126-964-11	ELECT	10uF	20%	50V
C122	1-162-291-31	CERAMIC	560PF	10%	50V
C123	1-136-165-00	FILM	0.1uF	5%	50V
C124	1-136-165-00	FILM	0.1uF	5%	50V
C125	1-126-964-11	ELECT	10uF	20%	50V
C131	1-104-664-11	ELECT	47uF	20%	16V
C132	1-104-664-11	ELECT	47uF	20%	16V
C135	1-126-964-11	ELECT	10uF	20%	50V
C136	1-161-494-00	CERAMIC	0.022uF		25V
C141	1-126-959-11	ELECT	0.47uF	20%	50V
C151	1-162-286-21	CERAMIC	220PF	10%	50V (AED,AEP,G,UK,TH)
C151	1-162-286-31	CERAMIC	220PF	10%	50V (EXCEPT AED,AEP,G,UK,TH)
C153	1-162-286-21	CERAMIC	220PF	10%	50V (AED,AEP,G,UK,TH)
C153	1-162-286-31	CERAMIC	220PF	10%	50V (EXCEPT AED,AEP,G,UK,TH)
C161	1-137-195-11	FILM	0.56uF	5%	50V
C162	1-136-158-00	FILM	0.027uF	5%	50V
C165	1-136-159-00	FILM	0.033uF	5%	50V
C166	1-130-473-00	MYLAR	0.0015uF	5%	50V
C169	1-130-479-00	MYLAR	0.0047uF	5%	50V
C170	1-130-477-00	MYLAR	0.0033uF	5%	50V
C171	1-126-964-11	ELECT	10uF	20%	50V
C172	1-162-291-31	CERAMIC	560PF	10%	50V
C173	1-136-165-00	FILM	0.1uF	5%	50V
C174	1-136-165-00	FILM	0.1uF	5%	50V
C175	1-126-964-11	ELECT	10uF	20%	50V
C176	1-136-495-11	FILM	0.068uF	5%	50V
C177	1-136-153-00	FILM	0.01uF	5%	50V
C193	1-126-964-11	ELECT	10uF	20%	50V (US,CND/GRX30/GRX30J)
C194	1-162-286-31	CERAMIC	220PF	10%	50V
C197	1-164-159-11	CERAMIC	0.1uF		50V (US,CND/GRX30/GRX30J)
C301	1-126-960-11	ELECT	1uF	20%	50V
C302	1-130-479-00	MYLAR	0.0047uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-136-165-00	FILM	0.1uF	5%	50V
C305	1-126-964-11	ELECT	10uF	20%	50V
C306	1-126-960-11	ELECT	1uF	20%	50V
C307	1-126-959-11	ELECT	0.47uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-137-194-81	FILM	0.47uF	5%	50V
C310	1-162-290-31	CERAMIC	470PF	10%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remarks
C312	1-126-959-11	ELECT	0.47uF	20%	50V
C313	1-162-294-31	CERAMIC	0.001uF	10%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-104-665-11	ELECT	100uF	20%	10V
C317	1-104-665-11	ELECT	100uF	20%	10V
C320	1-162-290-31	CERAMIC	470PF	10%	50V
C331	1-164-159-11	CERAMIC	0.1uF		50V
C332	1-164-159-11	CERAMIC	0.1uF		50V
C333	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C334	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C351	1-126-960-11	ELECT	1uF	20%	50V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-126-964-11	ELECT	10uF	20%	50V
C356	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-959-11	ELECT	0.47uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-137-194-81	FILM	0.47uF	5%	50V
C381	1-162-306-11	CERAMIC	0.01uF	20%	16V
C382	1-104-665-11	ELECT	100uF	20%	10V
C390	1-126-935-11	ELECT	470uF	20%	6.3V
C391	1-161-494-00	CERAMIC	0.022uF		25V
C392	1-126-916-11	ELECT	1000uF	20%	6.3V
C393	1-161-494-00	CERAMIC	0.022uF		25V
C394	1-126-925-11	ELECT	470uF	20%	10V
C395	1-162-290-31	CERAMIC	470PF	10%	50V
C396	1-126-961-11	ELECT	2.2uF	20%	50V
C397	1-126-961-11	ELECT	2.2uF	20%	50V
C401	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C402	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C403	1-164-159-11	CERAMIC	0.1uF		50V (AEP,AED,UK,G,CIS)
C412	1-107-717-11	ELECT	47uF	20%	50V
C431	1-126-934-11	ELECT	220uF	20%	10V
C432	1-104-665-11	ELECT	100uF	20%	10V
C433	1-126-964-11	ELECT	10uF	20%	50V
C437	1-126-968-11	ELECT	100uF	20%	50V
C451	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C452	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C453	1-164-159-11	CERAMIC	0.1uF		50V (AEP,AED,UK,G,CIS)
C501	1-126-964-11	ELECT	10uF	20%	50V
C502	1-164-159-11	CERAMIC	0.1uF		50V
C503	1-136-165-00	FILM	0.1uF	5%	50V (TH/GRX30J)
C503	1-137-194-81	FILM	0.47uF	5%	50V
C504	1-126-926-11	ELECT	1000uF	20%	10V
C505	1-162-306-11	CERAMIC	0.01uF	20%	16V
C508	1-109-889-11	ELECT	1uF	20%	50V
C610	1-102-953-00	CERAMIC	18PF	5%	50V (TH)
C610	1-102-514-11	CERAMIC	22PF	5%	50V (EXCEPT TH)

Ref. No.	Part No.	Description			Remarks
C611	1-102-514-11	CERAMIC	22PF	5%	50V
C614	1-164-159-11	CERAMIC	0.1uF		50V
C616	1-104-665-11	ELECT	100uF	20%	10V
C662	1-164-159-11	CERAMIC	0.1uF		50V
C664	1-104-665-11	ELECT	100uF	20%	10V
C698	1-164-159-11	CERAMIC	0.1uF		50V
C801	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US,CND)
C801	1-128-582-11	ELECT	10uF	20%	100V (US,CND)
C802	1-162-290-31	CERAMIC	470PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-104-665-11	ELECT	100uF	20%	10V
C807	1-136-495-11	FILM	0.068uF	5%	50V
C808	1-136-495-11	FILM	0.068uF	5%	50V
C809	1-126-968-11	ELECT	100uF	20%	50V (AEP,AED,UK,G)
C809	1-128-552-51	ELECT	47uF	20%	63V (EXCEPT AED,AEP,G,UK)
C810	1-128-578-11	ELECT	1uF	20%	100V
C811	1-162-306-11	CERAMIC	0.01uF	20%	16V
C812	1-162-306-11	CERAMIC	0.01uF	20%	16V
C841	1-127-751-11	ELECT	3300uF	20%	50V (EXCEPT R550/RXD5)
C842	1-127-751-11	ELECT	3300uF	20%	50V (R550/RXD5)
C842	1-127-752-11	ELECT	3300uF	20%	63V (EXCEPT R550/RXD5)
C843	1-136-165-00	FILM	0.1uF	5%	50V (GRX30/GRX30J)
C844	1-136-165-00	FILM	0.1uF	5%	50V (US,CND)
C844	1-130-777-00	FILM	0.1uF	10%	100V (EXCEPT US,CND)
C851	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US,CND)
C851	1-128-582-11	ELECT	10uF	20%	100V
C852	1-162-290-31	CERAMIC	470PF	10%	50V
C853	1-162-282-31	CERAMIC	100PF	10%	50V
C854	1-104-665-11	ELECT	100uF	20%	10V
C857	1-136-495-11	FILM	0.068uF	5%	50V
C858	1-136-495-11	FILM	0.068uF	5%	50V
C859	1-126-968-11	ELECT	100uF	20%	50V (AEP,AED,UK,G)
C859	1-128-552-51	ELECT	47uF	20%	63V (EXCEPT AED,AEP,G,UK)
C865	1-126-947-11	ELECT	47uF	20%	35V
C870	1-164-159-11	CERAMIC	0.1uF		50V (TH/GRX30J)
C871	1-126-948-11	ELECT	100uF	20%	35V (TH/GRX30J)
C872	1-128-553-11	ELECT	220uF	20%	63V (TH/GRX30J)
C891	1-127-751-11	ELECT	3300uF	20%	50V (EXCEPT R550/RXD5)
C892	1-127-751-11	ELECT	3300uF	20%	50V (R550/RXD5)
C892	1-127-752-11	ELECT	3300uF	20%	63V (EXCEPT R550/RXD5)

Ref. No.	Part No.	Description			Remarks
C893	1-136-165-00	FILM	0.1uF	5%	50V (GRX30/GRX30J)
C894	1-136-165-00	FILM	0.1uF	5%	50V (US,CND)
C894	1-130-777-00	FILM	0.1uF	10%	100V (EXCEPT US,CND)
C901	1-136-165-00	FILM	0.1uF	5%	50V
C902	1-126-944-11	ELECT	3300uF	20%	25V
C903	1-104-666-11	ELECT	220uF	20%	25V
C904	1-104-664-11	ELECT	47uF	20%	16V
C905	1-104-661-91	ELECT	330uF	20%	16V
C906	1-136-165-00	FILM	0.1uF	5%	50V
C907	1-128-548-11	ELECT	4700uF	20%	25V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-104-665-11	ELECT	100uF	20%	10V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-126-767-11	ELECT	1000uF	20%	16V
C913	1-126-964-11	ELECT	10uF	20%	50V
C914	1-126-767-11	ELECT	1000uF	20%	16V
C915	1-104-664-11	ELECT	47uF	20%	16V
C916	1-164-159-11	CERAMIC	0.1uF		50V
C917	1-126-933-11	ELECT	100uF	20%	16V
C951	1-136-165-00	FILM	0.1uF	5%	50V
C952	1-126-943-11	ELECT	2200uF	20%	25V
C953	1-104-666-11	ELECT	220uF	20%	25V
C955	1-104-661-91	ELECT	330uF	20%	16V
C956	1-136-165-00	FILM	0.1uF	5%	50V
		< CONNECTOR >			
* CN103	1-568-935-11	PIN, CONNECTOR 8P (GRX30J)			
* CN104	1-568-936-11	PIN, CONNECTOR 9P (GRX30J)			
* CN301	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P (EXCEPT AED,AEP,G,UK)			
CN303	1-784-776-11	CONNECTOR, FFC 15P			
CN304	1-784-778-11	CONNECTOR, FFC 17P			
CN371	1-784-776-11	CONNECTOR, FFC 15P (EXCEPT AR,AUS,CND,E2,KR,MX,TH,US)			
CN371	1-784-774-11	CONNECTOR, FFC 13P (AR,E2,MX,TH,KR,AUS,US,CND)			
CN391	1-764-698-11	SOCKET, CONNECTOR (NON ZIF) 19P			
* CN392	1-568-935-11	PIN, CONNECTOR 8P (EXCEPT GRX30J)			
* CN393	1-568-936-11	PIN, CONNECTOR 9P (EXCEPT GRX30J)			
CN501	1-784-780-11	CONNECTOR, FFC 19P			
* CN502	1-568-934-11	PIN, CONNECTOR 7P (GRX30J)			
		< DIODE >			
D141	8-719-911-19	DIODE 1SS119			
D191	8-719-911-19	DIODE 1SS119 (US,CND/GRX30/GRX30J)			
D331	8-719-911-19	DIODE 1SS119			
D333	8-719-911-19	DIODE 1SS119			
D334	8-719-911-19	DIODE 1SS119			
D335	8-719-911-19	DIODE 1SS119			
D401	8-719-911-19	DIODE 1SS119			
D411	8-719-911-19	DIODE 1SS119			
D501	8-719-911-19	DIODE 1SS119			
D502	8-719-911-19	DIODE 1SS119			

Ref. No.	Part No.	Description	Remarks
D503	8-719-911-19	DIODE 1SS119	
D504	8-719-911-19	DIODE 1SS119	
D505	8-719-911-19	DIODE 1SS119	
D506	8-719-911-19	DIODE 1SS119	
D507	8-719-911-19	DIODE 1SS119	
D509	8-719-911-19	DIODE 1SS119	
D801	8-719-911-19	DIODE 1SS119	
D802	8-719-118-86	DIODE RD11F-T7B3 (GRX30/GRX30J)	
D803	8-719-911-19	DIODE 1SS119	
D831	8-719-302-38	DIODE RBV-602-01	
D832	8-719-302-38	DIODE RBV-602-01 (GRX30/GRX30J)	
D851	8-719-911-19	DIODE 1SS119	
D852	8-719-118-86	DIODE RD11F-T7B3 (GRX30/GRX30J)	
D865	8-719-911-19	DIODE 1SS119 (TH/GRX30J)	
D870	8-719-934-25	DIODE HZS33-1L (TH/GRX30J)	
D872	8-719-921-48	DIODE MTZJ-T-72-5.6C (TH/GRX30J)	
D873	8-719-024-99	DIODE 11ES2-NTA2B (TH/GRX30J)	
D874	8-719-024-99	DIODE 11ES2-NTA2B (TH/GRX30J)	
D901	8-719-024-99	DIODE 11ES2-NTA2B	
D902	8-719-024-99	DIODE 11ES2-NTA2B	
D903	8-719-024-99	DIODE 11ES2-NTA2B	
D904	8-719-024-99	DIODE 11ES2-NTA2B	
D905	8-719-933-36	DIODE HZS6B1L	
D906	8-719-911-19	DIODE 1SS119	
D907	8-719-024-99	DIODE 11ES2-NTA2B	
D908	8-719-024-99	DIODE 11ES2-NTA2B	
D909	8-719-024-99	DIODE 11ES2-NTA2B	
D910	8-719-024-99	DIODE 11ES2-NTA2B	
D911	8-719-911-19	DIODE 1SS119 (TH/GRX30J)	
D911	8-719-991-33	DIODE 1SS133T-77 (GRX30/GRX30J)	
D912	8-719-024-99	DIODE 11ES2-NTA2B (GRX30/GRX30J)	
D912	8-719-200-82	DIODE 11ES2 (TH)	
D913	8-719-024-99	DIODE 11ES2-NTA2B (GRX30/GRX30J)	
D913	8-719-200-82	DIODE 11ES2 (TH)	
D915	8-719-935-69	DIODE HZS11B1LTA	
		< TERMINAL >	
* EPT3	1-537-738-21	TERMINAL, EARTH (EXCEPT GRX30J)	
		< IC >	
IC101	8-759-571-55	IC M62493FP-A	
IC301	8-759-495-26	IC HA12215	
IC381	8-749-923-04	IC TOTX178 (CD DIGITAL OUT, OPTICAL)	
IC501	8-759-588-90	IC M30622MA-A08FP (US,CND,CIS/GRX30)	
IC502	8-759-635-63	IC M51943BSL	
IC801	8-749-015-45	IC STK407-090E (US,AEP,AED,UK,G,CIS)	
IC801	8-749-015-34	IC STK411-210E (GRX30/GRX30J)	
IC801	8-749-015-44	IC STK407-070E (CND)	
IC901	8-759-604-86	IC M5F7807L	
IC902	8-759-231-53	IC TA7805S	
IC903	8-759-088-08	IC UPC7812AHF	
		< JACK >	
J101	1-573-028-31	JACK, PIN 4P (MD/VIDEO(AUDIO), IN/OUT) (EXCEPT GRX30J)	
J101	1-695-188-31	JACK, PIN 4P (MD/VIDEO(AUDIO), IN/OUT) (GRX30J)	
J191	1-774-785-11	JACK, PIN 1P (SUPER WOOFER) (US,CND/GRX30/GRX30J)	

MAIN

Ref. No.	Part No.	Description	Remarks
		< COIL >	
L381	1-410-521-11	INDUCTOR 100uH	
L391	1-410-521-11	INDUCTOR 100uH	
L392	1-410-521-11	INDUCTOR 100uH	
L401	1-420-872-00	COIL, AIR-CORE (AED,AEP,CIS,G,UK)	
L451	1-420-872-00	COIL, AIR-CORE (AED,AEP,CIS,G,UK)	
L501	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q111	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q112	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q113	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q161	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q162	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q163	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q191	8-729-141-30	TRANSISTOR 2SC3623A-LK	(US,CND/GRX30/GRX30J)
Q192	8-729-900-63	TRANSISTOR DTA124ES	(US,CND/GRX30/GRX30J)
Q331	8-729-116-56	TRANSISTOR 2SB1068-L	
Q332	8-729-900-80	TRANSISTOR DTC114ES	
Q333	8-729-116-56	TRANSISTOR 2SB1068-L	
Q334	8-729-900-80	TRANSISTOR DTC114ES	
Q335	8-729-900-80	TRANSISTOR DTC114ES	
Q336	8-729-116-56	TRANSISTOR 2SB1068-L	
Q337	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q338	8-729-422-57	TRANSISTOR UN4111	
Q339	8-729-900-80	TRANSISTOR DTC114ES	
Q340	8-729-116-56	TRANSISTOR 2SB1068-L	
Q341	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q342	8-729-422-57	TRANSISTOR UN4111	
Q343	8-729-900-80	TRANSISTOR DTC114ES	
Q411	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q412	8-729-900-63	TRANSISTOR DTA124ES	
Q431	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q432	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q433	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q434	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q435	8-729-900-36	TRANSISTOR DTC124ES	
Q436	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q437	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q439	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q461	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q508	8-729-900-63	TRANSISTOR DTA124ES	
Q509	8-729-900-63	TRANSISTOR DTA124ES	
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q803	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q804	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q831	8-729-900-36	TRANSISTOR DTC124ES	
Q832	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q865	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q870	8-729-140-97	TRANSISTOR 2SB734-34 (GRX30/GRX30J)	
Q901	8-729-209-15	TRANSISTOR 2SD2012	
Q902	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q903	8-729-900-36	TRANSISTOR DTC124ES	
Q904	8-729-900-36	TRANSISTOR DTC124ES	
Q905	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q907	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q908	8-729-900-36	TRANSISTOR DTC124ES	
Q909	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q913	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q914	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q923	8-729-900-36	TRANSISTOR DTC124ES	
Q951	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q952	8-729-119-77	TRANSISTOR 2SA1175-FEK	
		< RESISTOR >	
R101	1-249-417-11	CARBON 1K 5% 1/4W	F
R103	1-249-417-11	CARBON 1K 5% 1/4W	F
R111	1-249-429-11	CARBON 10K 5% 1/4W	
R112	1-247-903-00	CARBON 1M 5% 1/4W	
R113	1-247-903-00	CARBON 1M 5% 1/4W	
R114	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R115	1-249-433-11	CARBON 22K 5% 1/4W	
R116	1-247-887-00	CARBON 220K 5% 1/4W	
R117	1-249-429-11	CARBON 10K 5% 1/4W	
R118	1-249-437-11	CARBON 47K 5% 1/4W	
R119	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R120	1-249-441-11	CARBON 100K 5% 1/4W	
R121	1-249-429-11	CARBON 10K 5% 1/4W	
R124	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R125	1-247-843-11	CARBON 3.3K 5% 1/4W	
R126	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R131	1-247-807-31	CARBON 100 5% 1/4W	
R132	1-247-807-31	CARBON 100 5% 1/4W	
R133	1-247-807-31	CARBON 100 5% 1/4W	
R141	1-249-433-11	CARBON 22K 5% 1/4W	
R142	1-249-433-11	CARBON 22K 5% 1/4W	
R143	1-249-417-11	CARBON 1K 5% 1/4W	F
R144	1-249-441-11	CARBON 100K 5% 1/4W	
R145	1-247-903-00	CARBON 1M 5% 1/4W	
R151	1-249-417-11	CARBON 1K 5% 1/4W	F
R153	1-249-417-11	CARBON 1K 5% 1/4W	F
R161	1-249-429-11	CARBON 10K 5% 1/4W	
R162	1-247-903-00	CARBON 1M 5% 1/4W	
R163	1-247-903-00	CARBON 1M 5% 1/4W	
R164	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R165	1-249-433-11	CARBON 22K 5% 1/4W	
R166	1-247-887-00	CARBON 220K 5% 1/4W	
R167	1-249-429-11	CARBON 10K 5% 1/4W	
R168	1-249-437-11	CARBON 47K 5% 1/4W	
R169	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R170	1-249-441-11	CARBON 100K 5% 1/4W	
R171	1-249-429-11	CARBON 10K 5% 1/4W	
R178	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R190	1-249-441-11	CARBON 100K 5% 1/4W	
R196	1-249-417-11	CARBON 1K 5% 1/4W	F (GRX30/GRX30J/RDX5:US,CND)

Ref. No.	Part No.	Description			Remarks
R197	1-249-441-11	CARBON	100K	5%	1/4W
			(GRX30/GRX30J/RDX5:US,CND)		
R198	1-249-417-11	CARBON	1K	5%	1/4W F
			(GRX30/GRX30J/RDX5:US,CND)		
R199	1-249-429-11	CARBON	10K	5%	1/4W
			(GRX30/GRX30J/RDX5:US,CND)		
R301	1-249-435-11	CARBON	33K	5%	1/4W
R302	1-249-421-11	CARBON	2.2K	5%	1/4W F
R303	1-247-807-31	CARBON	100	5%	1/4W
R304	1-247-807-31	CARBON	100	5%	1/4W
R305	1-249-421-11	CARBON	2.2K	5%	1/4W F
R306	1-249-428-11	CARBON	8.2K	5%	1/4W F
R307	1-249-428-11	CARBON	8.2K	5%	1/4W F
R308	1-249-425-11	CARBON	4.7K	5%	1/4W F
R309	1-249-433-11	CARBON	22K	5%	1/4W
R311	1-247-903-00	CARBON	1M	5%	1/4W
R312	1-247-884-11	CARBON	160K	5%	1/4W
R313	1-249-441-11	CARBON	100K	5%	1/4W
R315	1-249-429-11	CARBON	10K	5%	1/4W
R316	1-249-432-11	CARBON	18K	5%	1/4W
R317	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-247-893-11	CARBON	390K	5%	1/4W
R321	1-249-422-11	CARBON	2.7K	5%	1/4W F
R322	1-249-428-11	CARBON	8.2K	5%	1/4W F
R324	1-247-876-11	CARBON	75K	5%	1/4W
R325	1-247-876-11	CARBON	75K	5%	1/4W
R326	1-249-437-11	CARBON	47K	5%	1/4W
R327	1-249-437-11	CARBON	47K	5%	1/4W
R328	1-249-437-11	CARBON	47K	5%	1/4W
R329	1-249-417-11	CARBON	1K	5%	1/4W F
R330	1-249-425-11	CARBON	4.7K	5%	1/4W F
R331	1-249-425-11	CARBON	4.7K	5%	1/4W F
R332	1-249-415-11	CARBON	680	5%	1/4W F
R333	1-249-421-11	CARBON	2.2K	5%	1/4W F
R334	1-249-415-11	CARBON	680	5%	1/4W F
R335	1-249-421-11	CARBON	2.2K	5%	1/4W F
R336	1-249-437-11	CARBON	47K	5%	1/4W
R337	1-249-417-11	CARBON	1K	5%	1/4W F
R338	1-249-411-11	CARBON	330	5%	1/4W
R339	1-249-437-11	CARBON	47K	5%	1/4W
R340	1-249-437-11	CARBON	47K	5%	1/4W
R341	1-249-411-11	CARBON	330	5%	1/4W
R342	1-249-437-11	CARBON	47K	5%	1/4W
R343	1-249-417-11	CARBON	1K	5%	1/4W F
R351	1-249-435-11	CARBON	33K	5%	1/4W
R352	1-249-421-11	CARBON	2.2K	5%	1/4W F
R353	1-247-807-31	CARBON	100	5%	1/4W
R354	1-247-807-31	CARBON	100	5%	1/4W
R355	1-249-421-11	CARBON	2.2K	5%	1/4W F
R356	1-249-428-11	CARBON	8.2K	5%	1/4W F
R357	1-249-428-11	CARBON	8.2K	5%	1/4W F
R358	1-249-425-11	CARBON	4.7K	5%	1/4W F
R359	1-249-435-11	CARBON	33K	5%	1/4W
R391	1-247-807-31	CARBON	100	5%	1/4W
R392	1-247-807-31	CARBON	100	5%	1/4W
R393	1-249-435-11	CARBON	33K	5%	1/4W
R394	1-249-435-11	CARBON	33K	5%	1/4W

Ref. No.	Part No.	Description			Remarks
R401	1-260-076-11	CARBON	10	5%	1/2W
					(AEP,AED,UK,G,CIS)
R402	1-260-076-11	CARBON	10	5%	1/2W
					(AEP,AED,UK,G,CIS)
⚠R411	1-216-456-00	METAL OXIDE	820	5%	2W F
					(US,CND)
⚠R411	1-215-892-11	METAL OXIDE	1K	5%	2W F
					(AEP,AED,UK,G,CIS)
⚠R411	1-215-893-11	METAL OXIDE	1.5K	5%	2W F
					(GRX30/GRX30J)
R413	1-249-402-11	CARBON	56	5%	1/4W F
R414	1-249-417-11	CARBON	1K	5%	1/4W F
R415	1-249-429-11	CARBON	10K	5%	1/4W
R416	1-249-437-11	CARBON	47K	5%	1/4W
R417	1-249-417-11	CARBON	1K	5%	1/4W F
R421	1-260-091-11	CARBON	220	5%	1/2W
R422	1-260-091-11	CARBON	220	5%	1/2W
R431	1-249-438-11	CARBON	56K	5%	1/4W
R432	1-249-437-11	CARBON	47K	5%	1/4W
R434	1-247-863-91	CARBON	22K	5%	1/4W
					(EXCEPT AEP,AED,G,UK)
R434	1-247-903-00	CARBON	1M	5%	1/4W
					(AEP,AED,G,UK)
R435	1-249-425-11	CARBON	4.7K	5%	1/4W F
R437	1-249-429-11	CARBON	10K	5%	1/4W
R438	1-249-429-11	CARBON	10K	5%	1/4W
R439	1-249-425-11	CARBON	4.7K	5%	1/4W F
R440	1-247-863-91	CARBON	22K	5%	1/4W
					(EXCEPT AEP,AED,G,UK)
R440	1-247-903-00	CARBON	1M	5%	1/4W
					(AEP,AED,G,UK)
R441	1-249-435-11	CARBON	33K	5%	1/4W
R443	1-249-417-11	CARBON	1K	5%	1/4W
					(AEP,AED,UK,G,CIS)
R452	1-260-076-11	CARBON	10	5%	1/2W
					(AEP,AED,UK,G,CIS)
R463	1-249-402-11	CARBON	56	5%	1/4W F
R464	1-249-417-11	CARBON	1K	5%	1/4W F
R471	1-260-091-11	CARBON	220	5%	1/2W
R472	1-260-091-11	CARBON	220	5%	1/2W
R501	1-249-413-11	CARBON	470	5%	1/4W F
R502	1-249-425-11	CARBON	4.7K	5%	1/4W F
R503	1-249-437-11	CARBON	47K	5%	1/4W
R504	1-249-437-11	CARBON	47K	5%	1/4W
R505	1-249-429-11	CARBON	10K	5%	1/4W
R506	1-249-429-11	CARBON	10K	5%	1/4W
R508	1-249-421-11	CARBON	2.2K	5%	1/4W F
R509	1-249-441-11	CARBON	100K	5%	1/4W
R511	1-247-807-31	CARBON	100	5%	1/4W
					(TH/GRX30J)
R512	1-247-807-31	CARBON	100	5%	1/4W
					(TH/GRX30J)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN

Ref. No.	Part No.	Description				Remarks
R523	1-249-427-11	CARBON	6.8K	5%	1/4W	F (AEP,UK,G,AED,CIS)
R523	1-249-437-11	CARBON	47K	5%	1/4W	(EA,TH,JE,KR,AUS)
R523	1-249-433-11	CARBON	22K	5%	1/4W	(AR,E2,MX)
R524	1-249-429-11	CARBON	10K	5%	1/4W	(JE)
R524	1-247-843-11	CARBON	3.3K	5%	1/4W	(TH,KR,AUS)
R524	1-249-435-11	CARBON	33K	5%	1/4W	(EA)
R524	1-249-437-11	CARBON	47K	5%	1/4W	(AR,E2,MX,AEP,AED,UK,G,CIS)
R527	1-249-429-11	CARBON	10K	5%	1/4W	
R536	1-249-429-11	CARBON	10K	5%	1/4W	
R567	1-247-807-31	CARBON	100	5%	1/4W	
R568	1-249-429-11	CARBON	10K	5%	1/4W	
R569	1-249-429-11	CARBON	10K	5%	1/4W	
R570	1-249-429-11	CARBON	10K	5%	1/4W	
R571	1-249-429-11	CARBON	10K	5%	1/4W	
R577	1-249-429-11	CARBON	10K	5%	1/4W	
R581	1-249-429-11	CARBON	10K	5%	1/4W	
R582	1-247-843-11	CARBON	3.3K	5%	1/4W	
R610	1-247-807-31	CARBON	100	5%	1/4W	
R613	1-247-807-31	CARBON	100	5%	1/4W	
R617	1-249-429-11	CARBON	10K	5%	1/4W	
R618	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R619	1-247-807-31	CARBON	100	5%	1/4W	
R620	1-247-807-31	CARBON	100	5%	1/4W	(AEP,AED,UK,G,CIS)
R621	1-247-807-31	CARBON	100	5%	1/4W	(AEP,AED,UK,G,CIS)
R627	1-247-807-31	CARBON	100	5%	1/4W	
R629	1-247-807-31	CARBON	100	5%	1/4W	
R630	1-247-807-31	CARBON	100	5%	1/4W	
R632	1-247-807-31	CARBON	100	5%	1/4W	
R633	1-247-807-31	CARBON	100	5%	1/4W	
R635	1-247-807-31	CARBON	100	5%	1/4W	
R636	1-247-807-31	CARBON	100	5%	1/4W	
R637	1-247-807-31	CARBON	100	5%	1/4W	
R642	1-247-807-31	CARBON	100	5%	1/4W	
R643	1-247-807-31	CARBON	100	5%	1/4W	
R649	1-247-807-31	CARBON	100	5%	1/4W	
R650	1-247-807-31	CARBON	100	5%	1/4W	
R651	1-247-807-31	CARBON	100	5%	1/4W	
R652	1-247-807-31	CARBON	100	5%	1/4W	
R653	1-247-807-31	CARBON	100	5%	1/4W	
R654	1-247-807-31	CARBON	100	5%	1/4W	
R655	1-247-807-31	CARBON	100	5%	1/4W	
R656	1-247-807-31	CARBON	100	5%	1/4W	
R657	1-247-807-31	CARBON	100	5%	1/4W	
R658	1-247-807-31	CARBON	100	5%	1/4W	
R659	1-247-807-31	CARBON	100	5%	1/4W	
R660	1-247-807-31	CARBON	100	5%	1/4W	
R661	1-247-807-31	CARBON	100	5%	1/4W	
R663	1-247-807-31	CARBON	100	5%	1/4W	
R665	1-247-807-31	CARBON	100	5%	1/4W	
R666	1-247-807-31	CARBON	100	5%	1/4W	
R667	1-247-807-31	CARBON	100	5%	1/4W	
R668	1-247-807-31	CARBON	100	5%	1/4W	
R669	1-247-807-31	CARBON	100	5%	1/4W	
R670	1-247-807-31	CARBON	100	5%	1/4W	
R671	1-247-807-31	CARBON	100	5%	1/4W	
R686	1-247-807-31	CARBON	100	5%	1/4W	
R687	1-247-807-31	CARBON	100	5%	1/4W	
R688	1-247-807-31	CARBON	100	5%	1/4W	
R689	1-247-807-31	CARBON	100	5%	1/4W	
R690	1-247-807-31	CARBON	100	5%	1/4W	
R691	1-247-807-31	CARBON	100	5%	1/4W	
R801	1-249-417-11	CARBON	1K	5%	1/4W	F
R802	1-249-438-11	CARBON	56K	5%	1/4W	
R803	1-249-413-11	CARBON	470	5%	1/4W	F (TH/GRX30J)
R803	1-249-415-11	CARBON	680	5%	1/4W	F (R550/RXD5)
R804	1-249-438-11	CARBON	56K	5%	1/4W	
R805	1-249-417-11	CARBON	1K	5%	1/4W	F
R806	1-249-431-11	CARBON	15K	5%	1/4W	
R807	1-249-441-11	CARBON	100K	5%	1/4W	
⚠R808	1-220-755-11	METAL	0.22	10%	2W	(AEP,AED,UK,G,CIS)
⚠R808	1-220-893-11	METAL	0.22	10%	5W	(EXCEPT AEP,AED,UK,G,CIS)
R809	1-260-076-11	CARBON	10	5%	1/2W	
R810	1-249-419-11	CARBON	1.5K	5%	1/4W	F (GRX30/GRX30J)
⚠R811	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R812	1-202-972-61	FUSIBLE	1	5%	1/4W	F
R813	1-249-435-11	CARBON	33K	5%	1/4W	
R814	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R815	1-249-433-11	CARBON	22K	5%	1/4W	
R816	1-249-429-11	CARBON	10K	5%	1/4W	
R817	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R818	1-249-435-11	CARBON	33K	5%	1/4W	
R819	1-249-439-11	CARBON	68K	5%	1/4W	
R831	1-249-441-11	CARBON	100K	5%	1/4W	
R832	1-249-441-11	CARBON	100K	5%	1/4W	
R833	1-247-843-11	CARBON	3.3K	5%	1/4W	
R842	1-249-437-11	CARBON	47K	5%	1/4W	
R851	1-249-417-11	CARBON	1K	5%	1/4W	F
R852	1-249-438-11	CARBON	56K	5%	1/4W	
R853	1-249-418-11	CARBON	1.2K	5%	1/4W	F (US,CND)
R853	1-249-416-11	CARBON	820	5%	1/4W	F (AEP,AED,UK,G,CIS)
R853	1-249-413-11	CARBON	470	5%	1/4W	F (GRX31/GRX30J)
R853	1-249-415-11	CARBON	680	5%	1/4W	F (R550/RXD5)
R854	1-249-438-11	CARBON	56K	5%	1/4W	
R855	1-249-417-11	CARBON	1K	5%	1/4W	F
R856	1-249-431-11	CARBON	15K	5%	1/4W	

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Ref. No.	Part No.	Description			Remarks
R857	1-249-441-11	CARBON	100K	5%	1/4W
⚠R858	1-220-755-11	METAL	0.22	10%	2W (AEP,AED,UK,G,CIS)
⚠R858	1-220-893-11	METAL	0.22	10%	5W (EXCEPT AEP,AED,UK,G,CIS)
R859	1-260-076-11	CARBON	10	5%	1/2W
R860	1-249-419-11	CARBON	1.5K	5%	1/4W F (TH)
R860	1-247-759-11	CARBON	3.9K	5%	1/2W (EXCEPT TH/GRX30J)
R861	1-212-881-11	FUSIBLE	100	5%	1/4W F
R865	1-249-435-11	CARBON	33K	5%	1/4W
R866	1-249-435-11	CARBON	33K	5%	1/4W
⚠R870	1-219-121-11	FUSIBLE	0.22	5%	1/4W F (TH)
R871	1-249-429-11	CARBON	10K	5%	1/4W (TH)
R872	1-247-843-11	CARBON	3.3K	5%	1/4W (GRX30/GRX30J)
R873	1-219-121-11	FUSIBLE	0.22	5%	1/4W (EXCEPT TH/R550/RXD5)
R892	1-249-437-11	CARBON	47K	5%	1/4W
R901	1-247-843-11	CARBON	3.3K	5%	1/4W
R902	1-249-415-11	CARBON	680	5%	1/4W F
R903	1-249-419-11	CARBON	1.5K	5%	1/4W F
R904	1-249-414-11	CARBON	560	5%	1/4W F
R905	1-249-425-11	CARBON	4.7K	5%	1/4W F
R906	1-247-843-11	CARBON	3.3K	5%	1/4W
R907	1-249-415-11	CARBON	680	5%	1/4W F
R908	1-249-429-11	CARBON	10K	5%	1/4W
R909	1-249-430-11	CARBON	12K	5%	1/4W
R911	1-249-409-11	CARBON	220	5%	1/4W F
R920	1-249-383-11	CARBON	1.5	5%	1/6W F
R921	1-249-383-11	CARBON	1.5	5%	1/6W F
R931	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-241-764-11	RES, ADJ, CARBON 10K			
RV351	1-241-764-11	RES, ADJ, CARBON 10K			
		< RELAY >			
RY401	1-515-920-1	RELAY			
		< TERMINAL >			
TM401	1-694-302-11	TERMINAL BOARD (CHECKER PIN) (SPEAKER)(CIS)			
TM401	1-537-240-31	TERMINAL BOARD (CHECKER PIN) (SPEAKER)(US,CND/GRX30/GRX30J)			
TM401	1-537-925-41	TERMINAL BOARD (CHECKER PIN) (SPEAKER)(AEP,AED,UK,G)			
		< VIBRATOR >			
X601	1-781-312-11	VIBRATOR, CERAMIC (32.768kHz)			
X613	1-781-107-21	VIBRATOR, SERAMIC (16.0MHz)			

Ref. No.	Part No.	Description			Remarks
*	1-658-578-11	MOTOR (SLIDE) BOARD			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN801	1-568-947-11	PIN, CONNECTOR 9P			
		< DIODE >			
D801	8-719-921-48	DIODE MTZJ-T-72-5.6C (US,CND,CIS/GRX30/GRX30J)			
D804	8-719-911-19	DIODE 1SS119			
D805	8-719-911-19	DIODE 1SS119			
		< IC >			
IC801	8-759-274-09	IC BA6286N			
		< RESISTOR >			
R801	1-249-401-11	CARBON	47	5%	1/4W F
		< SWITCH >			
S801	1-762-527-11	SWITCH, ROTARY			
*	1-658-577-11	MOTOR (TURN) BOARD			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	20%	16V
C702	1-126-964-11	ELECT	10uF	20%	50V
C705	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN702	1-785-550-11	CONNECTOR, FFC/FPC 8P			
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P			
CN703	1-785-550-11	CONNECTOR, FFC/FPC 8P			
CN704	1-506-469-11	PIN, CONNECTOR 4P			
		< DIODE >			
D701	8-719-983-66	DIODE MTZJ-T-72-3.6B (US,CND,CIS/GRX30/GRX30J)			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< RESISTOR >			
R701	1-249-416-11	CARBON	820	5%	1/4W F
R702	1-249-407-11	CARBON	150	5%	1/4W F
R706	1-249-411-11	CARBON	330	5%	1/4W
R707	1-249-401-11	CARBON	47	5%	1/4W F

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PANEL

Ref. No.	Part No.	Description	Remarks
	A-4419-034-A	PANEL BOARD, COMPLETE ********** (EXCEPT GRX30J,AED,AEP,G,UK,TH) **********	
	A-4419-962-A	PANEL BOARD, COMPLETE (TH) **********	
	A-4424-023-A	PANEL BOARD, COMPLETE (GRX30J) **********	
	A-4419-624-A	PANEL BOARD, COMPLETE (AEP,AED,UK,G) **********	
*	4-996-796-01	HOLDER, FL TUBE	
		< CAPACITOR >	
C601	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C603	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C604	1-126-163-11	ELECT 4.7uF 20% 50V	
C606	1-126-160-11	ELECT 1uF 20% 50V	
C625	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C626	1-124-589-11	ELECT 47uF 20% 16V	
C627	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C628	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C629	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C630	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C631	1-126-157-11	ELECT 10uF 20% 16V	
C632	1-126-157-11	ELECT 10uF 20% 16V	
C633	1-162-303-11	CERAMIC 0.0033uF 30% 16V	
C634	1-126-157-11	ELECT 10uF 20% 16V	
C635	1-126-163-11	ELECT 4.7uF 20% 50V	
C640	1-124-589-11	ELECT 47uF 20% 16V	
C644	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C645	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C646	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C647	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C648	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C649	1-124-589-11	ELECT 47uF 20% 16V	
C703	1-164-159-11	CERAMIC 0.1uF 50V	
C731	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C732	1-124-257-00	ELECT 2.2uF 20% 50V	
C733	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C734	1-162-215-31	CERAMIC 47PF 5% 50V	
C735	1-124-261-00	ELECT 10uF 20% 50V	
C736	1-162-290-31	CERAMIC 470PF 10% 50V	
C737	1-124-463-00	ELECT 0.1uF 20% 50V	
C739	1-162-215-31	CERAMIC 47PF 5% 50V	
C741	1-124-261-00	ELECT 10uF 20% 50V	
C742	1-162-282-31	CERAMIC 100PF 10% 50V	
C743	1-124-257-00	ELECT 2.2uF 20% 50V	
C747	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
CN601	1-784-461-11	CONNECTOR, FFC/FPC 19P	
		< DIODE >	
D611	8-719-063-93	DIODE SLR325VC-N-T32 ()	
D612	8-719-057-97	DIODE SEL5923A-TP15	
D613	8-719-063-93	DIODE SLR325VC-N-T32	
D615	8-719-063-93	DIODE SLR325VC-N-T32	
D616	8-719-057-97	DIODE SEL5923A-TP15	
D617	8-719-057-97	DIODE SEL5923A-TP15	
D620	8-719-056-13	DIODE SML79423C-TP15	
D621	8-719-058-03	DIODE SEL5423E-TP15	
D622	8-719-058-03	DIODE SEL5423E-TP15	
D623	8-719-058-03	DIODE SEL5423E-TP15	
D624	8-719-058-03	DIODE SEL5423E-TP15	
D625	8-719-073-47	DIODE SML72923C-TP15	
D626	8-719-057-97	DIODE SEL5923A-TP15	
D631	8-719-911-19	DIODE 1SS119 (GRX30J)	
D632	8-719-050-84	DIODE RB441Q-40T-72	
D634	8-719-911-19	DIODE 1SS119 (GRX30J)	
D635	8-719-911-19	DIODE 1SS119 (GRX30J)	
D636	8-719-991-33	DIODE 1SS133T-77	
		< TERMINAL >	
* EH601	1-537-738-21	TERMINAL, EARTH	
		< FERRITE BEAD >	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR	
		< FLUORESCENT TUBE >	
FL601	1-517-731-21	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC601	8-759-578-51	IC TMP88CP76F-6001	
IC602	8-749-011-05	IC GP1U28X	
IC603	8-759-495-25	IC BA3833F-E2	
IC712	8-759-636-55	IC M5218AFP	
		< JACK >	
J701	1-785-569-11	JACK (SMALL TYPE) (PHONES)	
		< TRANSISTOR >	
Q601	8-729-118-00	TRANSISTOR 2SB1116-L	
Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
Q603	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q604	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q605	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q611	8-729-904-39	TRANSISTOR DTC114TS	
Q612	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q613	8-729-904-39	TRANSISTOR DTC114TS	
Q614	8-729-904-39	TRANSISTOR DTC114TS	
Q615	8-729-904-39	TRANSISTOR DTC114TS	
Q616	8-729-904-39	TRANSISTOR DTC114TS	
Q617	8-729-900-80	TRANSISTOR DTC114ES	
Q620	8-729-904-39	TRANSISTOR DTC114TS	
Q621	8-729-904-39	TRANSISTOR DTC114TS	
		< RESISTOR >	
R601	1-247-903-00	CARBON 1M 5% 1/4W	
R602	1-247-807-31	CARBON 100 5% 1/4W	
R603	1-247-807-31	CARBON 100 5% 1/4W	
R604	1-247-807-31	CARBON 100 5% 1/4W	
R605	1-249-401-11	CARBON 47 5% 1/4W	F
R606	1-249-441-11	CARBON 100K 5% 1/4W	
R607	1-249-441-11	CARBON 100K 5% 1/4W	
R610	1-249-401-11	CARBON 47 5% 1/4W	F
R611	1-249-437-11	CARBON 47K 5% 1/4W	
R612	1-249-437-11	CARBON 47K 5% 1/4W	

Ref. No.	Part No.	Description			Remarks
R613	1-249-441-11	CARBON	100K	5%	1/4W
R614	1-249-437-11	CARBON	47K	5%	1/4W
R616	1-249-435-11	CARBON	33K	5%	1/4W
R617	1-247-895-00	CARBON	470K	5%	1/4W
R618	1-249-429-11	CARBON	10K	5%	1/4W
R619	1-249-429-11	CARBON	10K	5%	1/4W
R620	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-249-429-11	CARBON	10K	5%	1/4W
R622	1-249-429-11	CARBON	10K	5%	1/4W
R623	1-249-429-11	CARBON	10K	5%	1/4W
R628	1-249-429-11	CARBON	10K	5%	1/4W
R629	1-249-429-11	CARBON	10K	5%	1/4W
R630	1-249-429-11	CARBON	10K	5%	1/4W
R631	1-249-410-11	CARBON	270	5%	1/4W F
R632	1-249-411-11	CARBON	330	5%	1/4W
R633	1-249-413-11	CARBON	470	5%	1/4W F
R634	1-249-414-11	CARBON	560	5%	1/4W F
R635	1-249-415-11	CARBON	680	5%	1/4W F
R636	1-249-417-11	CARBON	1K	5%	1/4W F
R637	1-249-418-11	CARBON	1.2K	5%	1/4W F
R638	1-249-420-11	CARBON	1.8K	5%	1/4W F
R639	1-249-422-11	CARBON	2.7K	5%	1/4W F
R640	1-247-843-11	CARBON	3.3K	5%	1/4W
R641	1-249-425-11	CARBON	4.7K	5%	1/4W F
R642	1-249-427-11	CARBON	6.8K	5%	1/4W F
R643	1-249-429-11	CARBON	10K	5%	1/4W
R644	1-249-410-11	CARBON	270	5%	1/4W F
R645	1-249-411-11	CARBON	330	5%	1/4W
R646	1-249-413-11	CARBON	470	5%	1/4W F
R647	1-249-414-11	CARBON	560	5%	1/4W F
R648	1-249-415-11	CARBON	680	5%	1/4W F
R649	1-249-417-11	CARBON	1K	5%	1/4W F
R650	1-249-418-11	CARBON	1.2K	5%	1/4W F
R651	1-249-420-11	CARBON	1.8K	5%	1/4W F
R652	1-249-422-11	CARBON	2.7K	5%	1/4W F
R653	1-247-843-11	CARBON	3.3K	5%	1/4W
R654	1-249-425-11	CARBON	4.7K	5%	1/4W F
R655	1-249-427-11	CARBON	6.8K	5%	1/4W F
R656	1-249-429-11	CARBON	10K	5%	1/4W
R657	1-249-431-11	CARBON	15K	5%	1/4W
R658	1-249-410-11	CARBON	270	5%	1/4W F
R659	1-249-411-11	CARBON	330	5%	1/4W
R660	1-249-413-11	CARBON	470	5%	1/4W F
R661	1-249-414-11	CARBON	560	5%	1/4W F
R662	1-249-415-11	CARBON	680	5%	1/4W F
R663	1-249-417-11	CARBON	1K	5%	1/4W F
R666	1-249-407-11	CARBON	150	5%	1/4W F
R667	1-247-807-31	CARBON	100	5%	1/4W
R668	1-249-407-11	CARBON	150	5%	1/4W F
R670	1-249-407-11	CARBON	150	5%	1/4W F
R671	1-247-804-11	CARBON	75	5%	1/4W
R672	1-247-804-11	CARBON	75	5%	1/4W
R675	1-247-804-11	CARBON	75	5%	1/4W
R676	1-247-804-11	CARBON	75	5%	1/4W
R677	1-247-804-11	CARBON	75	5%	1/4W
R678	1-247-804-11	CARBON	75	5%	1/4W
R679	1-247-804-11	CARBON	75	5%	1/4W
R680	1-247-804-11	CARBON	75	5%	1/4W
R681	1-249-407-11	CARBON	150	5%	1/4W F
R682	1-247-807-31	CARBON	100	5%	1/4W
R683	1-249-421-11	CARBON	2.2K	5%	1/4W F (TH)
R683	1-249-409-11	CARBON	220	5%	1/4W F (EXCEPT TH)
R684	1-249-409-11	CARBON	220	5%	1/4W F
R685	1-249-421-11	CARBON	2.2K	5%	1/4W F
R686	1-249-429-11	CARBON	10K	5%	1/4W
R687	1-249-421-11	CARBON	2.2K	5%	1/4W F
R688	1-249-407-11	CARBON	150	5%	1/4W F
R691	1-249-417-11	CARBON	1K	5%	1/4W F
R692	1-249-417-11	CARBON	1K	5%	1/4W F
R693	1-249-417-11	CARBON	1K	5%	1/4W F
R721	1-249-429-11	CARBON	10K	5%	1/4W
R722	1-249-417-11	CARBON	1K	5%	1/4W F
R723	1-249-441-11	CARBON	100K	5%	1/4W
R724	1-249-421-11	CARBON	2.2K	5%	1/4W F
R725	1-249-437-11	CARBON	47K	5%	1/4W
R726	1-249-429-11	CARBON	10K	5%	1/4W
R728	1-247-885-00	CARBON	180K	5%	1/4W
R729	1-247-807-31	CARBON	100	5%	1/4W
		< VARIABLE RESISTOR >			
RV712	1-225-739-11	RES, VAR 50K			
		< SWITCH >			
S601	1-473-534-11	ENCODER, ROTARY (JOGDIAL)			
S602	1-473-392-11	ENCODER, ROTARY (VOLUME)			
S631	1-762-196-21	SWITCH, TACT (CD ▶▶I)			
S632	1-762-196-21	SWITCH, TACT (TUNER/BAND)			
S633	1-762-196-21	SWITCH, TACT (NON-STOP)			
S634	1-762-196-21	SWITCH, TACT (KARAOKE PON/MPX)			
S635	1-762-196-21	SWITCH, TACT (FILE SELECT)			
S636	1-762-196-21	SWITCH, TACT (ENTER/NEXT)			
S637	1-762-196-21	SWITCH, TACT (+ ▶▶)			
S638	1-762-196-21	SWITCH, TACT (DBFB)			
S639	1-762-196-21	SWITCH, TACT (SURROUND)			
S640	1-762-196-21	SWITCH, TACT (REC PAUSE/START)			
S641	1-762-196-21	SWITCH, TACT (HI-DUB)			
S642	1-762-196-21	SWITCH, TACT (CD SYNC)			
S643	1-762-196-21	SWITCH, TACT (FLASH)			
S644	1-762-196-21	SWITCH, TACT (■)			
S645	1-762-196-21	SWITCH, TACT (TAPE B ▶)			
S650	1-762-196-21	SWITCH, TACT (GROOVE)			
S651	1-762-196-21	SWITCH, TACT (– ◀◀)			
S652	1-762-196-21	SWITCH, TACT (TIMER SELECT)			
S653	1-762-196-21	SWITCH, TACT (FUNCTION)			
S654	1-762-196-21	SWITCH, TACT (SPECTRUM ANALYZER)			
S655	1-762-196-21	SWITCH, TACT (DISPLAY)			
S656	1-762-196-21	SWITCH, TACT (CLOCK/TIMER SET)			
S657	1-762-196-21	SWITCH, TACT (LOOP)			
S658	1-762-196-21	SWITCH, TACT (TAPE B ◀)			
S659	1-762-196-21	SWITCH, TACT (TAPE A ▶)			
S660	1-762-196-21	SWITCH, TACT (TAPE A ◀)			
S661	1-762-196-21	SWITCH, TACT (REPEAT,STEREO/MONO)			
S662	1-762-196-21	SWITCH, TACT (PLAY MODE,DOLBY NR)			
S663	1-762-196-21	SWITCH, TACT (EDIT DIRECTION,TUNER MEMORY)			

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SENSOR ST-BY

Ref. No.	Part No.	Description				Remarks
*	1-658-576-11	SENSOR BOARD				
		**********				
		< IC >				
IC702	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391				
IC703	8-749-924-30	IC PHOTO REFLECTOR GP2S28				
		< RESISTOR >				
R701	1-249-416-11	CARBON	820	5%	1/4W	F
R702	1-249-407-11	CARBON	150	5%	1/4W	F
**********						
	A-4419-055-A	ST-BY BOARD, COMPLETE (CIS)				
		**********				
	A-4419-048-A	ST-BY BOARD, COMPLETE (US)				
		**********				
	A-4419-052-A	ST-BY BOARD, COMPLETE (CND)				
		**********				
	A-4419-867-A	ST-BY BOARD, COMPLETE (GRX30J)				
		**********				
	A-4419-037-A	ST-BY BOARD, COMPLETE				
		**********				
		(GRX30:E2,E3,EA,AR,SP,TW)				
	A-4419-965-A	ST-BY BOARD, COMPLETE (TH)				
		**********				
	A-4419-045-A	ST-BY BOARD, COMPLETE (KR,AUS)				
		**********				
	A-4419-627-A	ST-BY BOARD, COMPLETE (AEP,AED,UK,G)				
		**********				
	A-4419-304-A	ST-BY BOARD, COMPLETE (MX)				
		**********				
	1-533-217-31	HOLDER, FUSE				
		< CAPACITOR >				
C11	1-126-767-11	ELECT	1000uF	20%	16V	
					(R550/RXD5)	
C12	1-164-159-21	CERAMIC	0.1uF		50V	
					(R550/RDX5)	
C13	1-126-933-11	ELECT	100uF	20%	16V	
					(R550/RXD5)	
C14	1-126-968-11	ELECT	100uF	20%	50V	
					(R550/RXD5)	
C15	1-164-159-21	CERAMIC	0.1uF		50V	
					(R550/RXD5)	
C16	1-126-948-11	ELECT	100uF	20%	35V	
					(R550/RXD5)	
C22	1-164-159-11	CERAMIC	0.1uF		50V	
					(R550/RXD5)	
		< CONNECTOR >				
CN11	1-564-321-00	PIN, CONNECTOR 2P				
CN12	1-564-321-00	PIN, CONNECTOR 2P				
		(GRX:30TH,KR,AUS/R550/RXD5)				
* CN12	1-564-687-11	PIN, CONNECTOR 3P				
		(GRX30:E2,E3,EA,MX,AR,SP,TW/GRX30J)				
CN13	1-506-486-11	PIN, CONNECTOR 7P (R550/RXD5)				
		< DIODE >				
D11	8-719-991-33	DIODE 1SS133T-77 (R550/RXD5)				
D12	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				
D13	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				
D14	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				
D15	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				

Ref. No.	Part No.	Description				Remarks
D16	8-719-991-33	DIODE 1SS133T-77 (R550/RXD5)				
D17	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				
D18	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				
D19	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				
D20	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)				
D21	8-719-934-25	DIODE HZS33-1L (R550/RXD5)				
D22	8-719-921-48	DIODE MTZJ-T-72-5.6C (R550/RXD5)				
D23	8-719-991-33	DIODE 1SS133T-77 (R550/RXD5)				
		< TERMINAL >				
* EB11	1-537-738-21	TERMINAL, EARTH (US,CND)				
		< FUSE >				
⚠F951	1-532-503-31	FUSE (T1.6AL 250V)				
		(R550/RXD5:AEP,AED,UK,G,CIS)				
⚠F951	1-532-465-31	FUSE (T3.15AL 250V)				
		(GRX30:E2,E3,EA,MX,AR,SP,TW,KR,AUS/GRX30J)				
⚠F951	1-576-109-11	FUSE (5.0A 125V) (RXD5:US, CND)				
		< IC >				
IC11	8-759-604-35	IC M5F78M05L (R550/RXD5)				
		< TRANSISTOR >				
⚠Q11	8-729-119-78	TRANSISTOR 2SC403SP-51 (R550/RXD5)				
Q12	8-729-040-19	TRANSISTOR RT1N137L-TP (R550/RXD5)				
Q13	8-729-118-01	TRANSISTOR 2SB1116 (R550/RXD5)				
Q14	8-729-040-19	TRANSISTOR RT1N137L-TP (R550/RXD5)				
Q15	8-729-040-19	TRANSISTOR RT1N137L-TP (R550/RXD5)				
Q16	8-729-900-63	TRANSISTOR DTA124ES (R550/RXD5)				
Q17	8-729-900-63	TRANSISTOR DTA124ES (R550/RXD5)				
		< RESISTOR >				
R11	1-249-429-11	CARBON	10K	5%	1/4W	
					(R550/RXD5)	
R12	1-247-876-11	CARBON	75K	5%	1/4W	
					(R550/RXD5)	
R13	1-249-417-11	CARBON	1K	5%	1/4W	F
					(R550/RXD5)	
R15	1-249-429-11	CARBON	10K	5%	1/4W	
					(R550/RXD5)	
R16	1-247-807-31	CARBON	100	5%	1/4W	
					(R550/RXD5)	
R17	1-247-807-31	CARBON	100	5%	1/4W	
					(R550/RXD5)	
R18	1-247-807-31	CARBON	100	5%	1/4W	
					(R550/RXD5)	
R19	1-249-427-11	CARBON	6.8K	5%	1/4W	
					(R550/RXD5)	
R20	1-249-429-11	CARBON	10K	5%	1/4W	
					(R550/RXD5)	
⚠R21	1-202-972-61	FUSIBLE	1	5%	1/4W	F
					(R550/RXD5)	
⚠R22	1-202-972-61	FUSIBLE	1	5%	1/4W	F
					(R550/RXD5)	
R31	1-202-725-00	SOLID	3.3M	10%	1/2W	
					(US,CND)	

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Ref. No.	Part No.	Description	Remarks
		< RELAY >	
⚠RY11	1-755-276-11	RELAY, POWER (R550/RXD5)	
		< TRANSFORMER >	
⚠T901	1-433-763-21	TRANSFORMER, POWER (AEP,AED,UK,G)	
⚠T901	1-433-763-11	TRANSFORMER, POWER (CIS)	
⚠T901	1-433-764-11	TRANSFORMER, POWER (US,CND)	
		< SWITCH >	
VS901	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)(GRX30:E2,E3,EA,AR,SP,TW/GRX30J)	
**********			
		MISCELLANEOUS	
		**********	
10	1-773-043-11	WIRE (FLAT TYPE) (17 CORE)	
11	1-773-024-11	WIRE (FLAT TYPE) (15 CORE)	
108	1-769-976-11	WIRE (FLAT TYPE) (13 CORE) (E2,MX,AR,TH,KR,AUS,US,CND)	
108	1-773-008-11	WIRE (FLAT TYPE) (15 CORE) (E3,EA,SP,TW,AEP,AED,UK,G,CIS)	
108	1-773-011-11	WIRE (FLAT TYPE) (15 CORE) (GRX30J)	
109	1-233-544-11	TUNER (FM/AM) (US,CND)	
109	1-233-545-14	TUNER (FM/AM) (MX,AR,TH,KR,AUS)	
109	1-233-546-11	TUNER (FM/MW/SW) (GRX30:E3,EA,SP,TW/GRX30J)	
109	1-693-443-11	TUNER (FM/AM) (AEP,AED,UK,G,CIS)	
109	1-693-453-11	TUNER (FM/AM) (E2)	
⚠114	1-575-651-11	CORD, POWER (GRX30:EA,AR,SP,TW/R550:CIS/RXD5:CIS)	
⚠114	1-575-653-11	CORD, POWER (GRX30:E2,E3,MX,TH/GRX30J)	
⚠114	1-696-847-11	CORD, POWER (GRX30:AUS)	
⚠114	1-769-079-21	CORD, POWER (GRX30:KR)	
⚠114	1-775-787-71	CORD, POWER (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
⚠114	1-783-820-11	CORD, POWER (RXD5:US)	
115	1-569-007-11	ADAPTOR, CONVERSION 2P (GRX30:E3/GRX30J)	
115	1-569-008-21	ADAPTOR, CONVERSION 2P (GRX30:EA,AR,SP,TW)	
115	1-569-008-31	ADAPTOR, CONVERSION (GRX30:EA,AR,SP,TW)	
115	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (R550:UK/RXD5:UK)	
206	1-658-577-11	MOTOR (TURN) BOARD	
257	1-452-925-21	MAGNET ASSY	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
⚠F951	1-532-503-31	FUSE (T1.6AL 250V) (R550/RXD5:AEP,AED,UK,G,CIS)	
⚠F951	1-532-465-31	FUSE (T3.15AL 250V) (GRX30:E2,E3,EA,MX,AR,SP,TW/GRX30J)	
⚠F951	1-576-109-11	FUSE (5.0A 125V) (RXD5:US,CND)	
⚠F953	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)	
⚠F954	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)	
⚠F955	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)	
⚠F956	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)	
M801	A-4672-004-A	MOTOR ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
M801	A-4672-312-A	MOTOR (CDM) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAT ADDRESS DET)	
⚠T11	1-433-755-11	TRANSFORMER, POWER (CIS)	
⚠T11	1-433-755-21	TRANSFORMER, POWER (AEP,AED,UK,G)	
⚠T11	1-433-756-11	TRANSFORMER, POWER (CND)	
⚠T11	1-433-757-11	TRANSFORMER, POWER (US)	
⚠T11	1-433-902-11	TRANSFORMER, POWER (GRX30/GRX30J)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-872-09	SCREW +BVTT 3 × 8 (S)	
#2	7-685-646-79	SCREW +BVTP 3 × 8 TYPE2 N-S	
#3	7-685-647-79	SCREW +BVTP 3 × 10 TYPE2 N-S	
#5	7-685-871-01	SCREW +BVTT 3 × 6 (S)	
#7	7-685-851-04	SCREW +BVTT 2 × 4 (S)	
#8	7-621-775-10	SCREW +B 2.6 × 4	
#9	7-621-255-15	SCREW +PS 2.6 × 6	
#11	7-628-254-15	SCREW +PS 2.6 × 6	
#12	7-628-254-50	SCREW +PS 2.6 × 16	
#13	7-685-853-04	SCREW +BVTT 2 × 6 (S)	
#14	7-685-861-01	SCREW +BVTT 2.6 × 5 (S)	
#16	7-682-953-09	SCREW +PSW 3 × 20 (GRX30:E2,E3,EA,MX,AR,SP,TW,KR,AUS/GRX30J/R550/RXD5)	
#17	3-030-823-01	SCREW (+BVTT) (2 × 3.5)	

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Home A&V Products Company

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